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Kirti Sharda

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**INDIAN INSTITUTE OF MANAGEMENT
AHMEDABAD-380 015
INDIA**

BACK TO THE DRAWING BOARD: EXPLORING GESTALTS OF WORK DESIGN IN BPO FIRMS

Kirti Sharda
Indian Institute of Management Ahmedabad
Email: kirti@iimahd.ernet.in

Abstract

This paper formulates a conceptual framework that proposes that certain work designs could contribute to better organizational performance within a sample of outsourcing firms. It explores this proposition using data collected from 60 outsourcing firms across India through survey and semi-structured interviews using principal components factor analysis, ward's minimum variance method and K-means cluster analysis, four dominant patterns or gestalts of outsourcing firms are identified, namely, involvement, directed intervention, embedded control and containment. This research makes some important contributions towards understanding outsourcing firms. It demonstrates that work designs can take a variety of forms. While involvement and containment designs have been studied in prior literature, two new work designs emerge, namely, directed intervention and embedded control. This paper also contributes to the academic realm. It follows research precedents set in general organizational literature, but which have not been used in the context of outsourcing firms. Just as the theoretical foundation of this study draws from the areas of outsourcing, organization theory and strategic human resource management, so also can the findings of this study be used in research in these disciplines.

BACK TO THE DRAWING BOARD: EXPLORING GESTALTS OF WORK DESIGN IN BPO FIRMS

INTRODUCTION

The industrial landscape has changed tremendously in the last decade. A series of geopolitical, macroeconomic, and technological trends have influenced the way businesses operate. Globalization has created opportunities by enabling access to new production facilities and product markets. At the same time, easy accessibility to inexpensive telecommunications infrastructure has greatly increased the speed and variety of work possible. Organizations are more interested than ever in breaking down barriers, both internal as well as external, to gain increasing flexibility in a dynamic business environment. This has had a significant impact on the way organizations can structure themselves and their methods of doing business. For instance, there is a trend towards mergers and alliances to penetrate new markets. Or there are firms that reorganize their structures to create more spatial and temporal flexibility. One such business model that has gained increasing prominence in the last decade is outsourcing of various value-chain activities to reduce costs and enhance product quality and customer service.

Although outsourcing has been defined from various perspectives all researchers agree that *outsourcing involves going outside the firm to acquire activities that are not conducted internally*. In other words, it is the delegation of production processes or services to an external vendor who owns and manages these processes, based upon defined performance metrics.

Outsourcing is not a new management tool. In fact, even the Romans were known to outsource their tax collection and highway maintenance (Kakabadse & Kakabadse, 2006). What has changed is the nature and focus of outsourcing, and its implications for competitive success. While historically, most outsourcing took place in manufacturing industries, now it has spread rapidly within service industries too. It is also becoming increasingly global in its reach. Today, outsourcing involves delivery of capabilities from various locations, for example, on-site delivery, onshore delivery within the same country, nearshore delivery from nearby countries, or farshore delivery from various continents.

Infact, it is often a blend of these alternatives and is ultimately tailored according to specific business goals (Kelly & Poole, 2006).

The nature of outsourcing has also become more diverse. Most firms outsource a range of secondary value-chain activities such as information technology, accounting systems, human resource management, and research and development (Johnson & Schneider, 1995; Lacity & Willcocks, 1998; Odagiri, 2003; Ono, 2003). Some firms outsource inbound and outbound logistics too (Knemeyer, Corsi & Murphy, 2003; Zsidisin, 2003). Further, there are firms such as Nike, IBM, Mattel, who outsource core production activities so extensively that they no longer engage in production, as it is traditionally understood (Barrar & Gervais, 2006).

The result is that while outsourcing was initially seen as a cost reduction tool with a clearly defined and limited scope, today it is increasingly regarded as a means of achieving a marked change in organizational performance, agility and customer service (Barrar & Gervais, 2006); in other words, as a source of competitive advantage. The increased acceptance of outsourcing is reflected in the fact that 82% of large firms in Europe, Asia and North America have outsourcing arrangements of some kind, and almost 51% use offshore outsourcers (Gottfredson, Puryear & Phillips, 2005).

DRIVERS OF OUTSOURCING

The trend towards outsourcing has been driven by a number of factors in the business environment. The most important drivers have been developments in information and communication technology (ICT), globalization, more demanding customers and governmental support (McIvor, 2006; Barrar & Gervais, 2006). These drivers have had an important impact on the growth of outsourcing, singularly as well as in an interrelated manner, as discussed below:

a. Developments in Information and Communication Technology (ICT)

Advances in ICTs have facilitated organizations to enter into outsourcing arrangements with greater ease. This is because information technology has helped reduce the cost as well as time required to transmit information. It has eliminated geographical constraints associated with physical information transmission mechanisms (McIvor, 2006). At the same time it has increased the complexity and amount of information that can be sent across its global

locations and to its outsourcing suppliers. Hence most organizations today rely on information technology to create efficiencies and reduce costs in their business operations.

b. Globalization

In recent years, the business environment has become increasingly global for many industries. While globalization has created opportunities by enabling access to new product markets and production facilities, it has also presented many challenges.

Globalization has increased the intensity of competition in many industries. In the past, organizations operated in a national market with three or four established companies and a “contained” level of competition. Nowadays, as organizations extend their boundaries globally they face competitors in both home and international markets (McIvor, 2006). The increased intensity of competition has put pressure on companies to reduce costs, enhance product quality and improve customer responsiveness. Many organizations have been forced to also accelerate the development of new products and services and restructure business processes in order to reduce costs and eliminate inefficiencies.

These changes have led to the creation of outsourcing organizations that help firms achieve greater economies of scale, share investments in research and development, sell in a wider range of markets, and access lower-cost labour sources for both the manufacture of their products and delivery of their services (Barrar & Gervais, 2006).

c. More demanding consumers

Customers today have become more knowledgeable on issues such as prices, reliability and availability of customer service. As a result they are demanding more customized products and services at lower prices. They are also more informed about alternate service providers, which has diminished customer loyalty. Hence in order to retain customers, organizations have to provide greater accessibility to their products and services. Organizations now use innovative methods to interface with customers in order to create more efficiency and convenience; an example of the same is through call centres and customer care centres.

d. Government support and policies

The success of the outsourcing industry has been critically dependent on governmental policies. This is especially true in the Indian business environment. Successive governments at both the central and state levels have liberalized policies, introduced tax exemptions, funded world-class satellite telecommunications projects and provided incentives for quality certifications (Barrar & Gervais, 2006). This has created a conducive business environment for the outsourcing industry to thrive in.

OUTSOURCING INDUSTRY IN INDIA : TRENDS AND CHALLENGES

India has emerged as one of the most favoured outsourcing destinations across the world in the last decade. According to the data gathered by United Nations Conference on Trade and Development (UNCTAD, 2005), it ranks first amongst outsourcing destinations followed by Britain, China, America, Canada, and Singapore. Outsourcing has been hailed variously as the *“next wave of opportunity for the country”*, *“a critical engine for India’s growth”* and *“the country’s most promising sector”* – a euphoria that is supported by impressive growth rates.

The business process outsourcing (BPO) industry in India has grown at the rate of 40-50% since its inception (Nasscom-McKinsey report, 2006) and accounts for nearly 10% of global BPO industry (Barnes, 2005). In 2002, Gartner, a market research and consultancy firm, estimated that more than 300 of the Fortune 500 firms had business relations with Indian IT service companies (Frauenheim, 2002). The outsourcing sector contributes almost 2.2% to the GDP of India and is expected to generate export revenues of about US\$ 59 billion by the end of FY2010-11 (www.nasscom.in). The outsourcing industry ranks first amongst all sectors with respect to employment generation and will employ almost 2.54 million people by then end of FY 2010-11 (www.nasscom.in). In essence, as most researchers and practitioners assert, India dominates, and is expected to continue dominating, the outsourcing market (Barrar & Gervais, 2006).

Despite the fact that India has evolved a powerful reputation for product and service quality, specialists have noted the growing challenge of being able to sustain these high growth levels (McCaffrey, 1999). While, the industry was growing at an annual rate of 50 percent by the end of 1990s, the growth rate had come down to 33 percent by 2005-2006

(www.nasscom.in). Although this by itself is a substantial growth rate, which has contributed US \$23.6 billion to the Indian economy in 2005-2006 (Nasscom-McKinsey report, 2006), there is increasing recognition of the fact that BPO firms are going to face an uphill task in the future.

One major threat to growth has emerged in the form of *increasing competition from other low-cost outsourcing destinations*. Countries such as Ireland, Poland, Brazil, Mexico, Philippines, and Czech Republic pose a serious risk to India's low-cost competitive advantage, with China emerging as the major threat. While China traditionally supplied back-office support, primarily to neighbouring Asian countries, its global reach is now extending (Einhorn & Kriplani, 2003). Some industry experts believe that China will eventually reach parity with India in terms of provision of call centre and back-office activities (Kelly & Poole, 2006). Equally, Poland's services market is also on the increase and it is well positioned to become the BPO centre for Europe (Barrar & Gervais, 2006).

Another serious factor that will contribute to Indian BPO firms' competitive disadvantage vis-à-vis its global peers is the *withdrawal of tax exemptions by the Indian government*. The current policy exempts export revenues of software companies from tax. However, the 100 percent tax deduction is available only up to March 2010. In the absence of such deductions beyond 2010-2011, companies will have to pay tax at a marginal rate of 33.99 percent. Withdrawal of these exemptions thus will not only prove to be a substantial cost to the outsourcing industry and render it uncompetitive with regard to global competitors, but it will threaten the very survival of smaller players and edge them out of existence (www.nasscom.in).

The industry also faces a lot of *resistance from Western countries* like US and UK since outsourcing appears to have an impact on local employment. Intense lobbying and public pressure has forced many state governments in USA to introduce legislation that bans private contractors as well as state contractors from outsourcing jobs to other countries (Kakabadse & Kakabadse, 2006). Infact, lobbyists have even made the US state governments return certain jobs that were outsourced to India back to US (Gruenberg, 2003). Further, the US Congress in September 2003 set the upper limit on H-1B visas issued to foreign high-technology workers at 65000 annually (from 195000 annually). This was largely to ensure

that more of the professional positions are filled by US citizens and not foreigners (Reich, 2003). All these steps could have a direct impact on the growth of the Indian outsourcing industry.

To add to all these are the *data theft and security concerns* plaguing the Indian call centres. The head of the Office of Government Commerce (OGC), UK assured unions in 2004 that jobs would not go overseas due to data security concerns (Morgan Cole, E-Business Team, 2004). Isolated cases of security breach by Indian BPO firms receive a disproportionate amount of media attention worldwide, and are sometimes used by opponents of outsourcing to taint the entire BPO industry.

The preceding problems are a function of the business environment in which BPO firms operate and firms can have only a limited influence on these issues in the short-term. However, BPO firms face an internal problem that is more immediate and critical, and is infact characteristic to outsourcing firms worldwide - *very high attrition rates*. Employee turnover is turning out to be the *Achilles' heel* for many call centres because agent turnover has a heavy impact on a call center's financial bottom line (Bordoloi, 2004). While, on an average, it costs a call centre only \$10 for each call, the cost to bring on a new agent is more than \$6000 (Bordoloi, 2004). In India, despite 'rather lucrative pay packets' (www.nasscom.in), attrition levels have reached alarming proportions. Annual attrition figures stand at almost 50 to 60%. Even mutual non-poaching agreements between companies have not been able to buck this trend (www.nasscom.in). Workers remain with their employer, on average, for eight months, and discontents related to work pressures are manifold amongst BPO employees (Datta, 2004).

Despite the growing importance of outsourcing, there isn't enough recognition of BPO firms as new organizational forms. Most research on outsourcing takes into account the client perspective, while the needs of outsourcing service providers and their goals are virtually ignored in outsourcing arrangements (Lee, 2008; Logan, 2000; Poston, Kettinger & Simon, 2009). The need to study BPO organizations assumes importance in the light of the serious problems the industry faces. The BPO industry has immense potential with respect to economic growth and employment generation. But, as discussed in the earlier section, it faces serious challenges to sustaining its high growth rate. Increasing competition from low

cost countries, phasing out of current tax exemptions offered by the Indian government, backlash from western countries against outsourcing local jobs, data theft and security concerns, and very high levels of attrition are threatening Indian BPO firms' competitive advantage. In such a scenario, a study that examines how different firms in the BPO industry approach these challenges and pave their way to organizational success is an important area of enquiry. In particular, this research aims to understand the similarities and dissimilarities in the work designs of BPO firms and their linkage to key success factors. To iterate the major objectives of this paper:

Expand the perspective from which outsourcing is viewed

Most of the current outsourcing research is from the client perspective, and neglects the vendor's point of view. To address this imbalance, this research focuses on the vendor perspective and advocates the study of the BPO firm as a new organizational form with its unique systems and practices.

Investigate differences in the choices and strategies available to BPO firms for managing their organization

Researchers study BPO firms as an undifferentiated set and fail to recognize the differences in their systems and structures. Since there are no widely accepted studies in this area based on an adequate set of internally consistent variables, this research proposes an examination of a broad variety of organizational design variables to identify richly defined clusters among BPO firms.

THE BUSINESS PROCESS OUTSOURCING (BPO) FIRM

As the acceptance of outsourcing model has increased, distinctive organizations have evolved with the sole objective of being outsourcing service providers. Today these business process outsourcing organizations, or BPO firms (as they are more commonly known as), have grown not only in terms of number but also in scope of services provided. With their growth, the bargaining position of these firms has changed too. Just as clients could discriminate amongst vendors, now vendor firms are also in a position to pick and choose their clients. Their tremendous growth and success has lead some to label them as the “oil barons of the 21st century” (Greco, 1997; Logan, 2000). However, research on BPO firms is still highly fragmented. This section brings together the various threads of prior research,

and attempts to structure them, in order to provide a more integrative picture of the literature on BPO firms and their organizational performance.

Before proceeding with an in-depth analysis of primary themes in research on BPO firms, an important question that needs to be addressed is the operationalization of the term “business process outsourcing firm”. The definition of BPO firm is neither well established nor commonly agreed upon. Even industry practitioners define the term extremely loosely (see www.bpo.nasscom.in). Thus, BPO firms are alternatively addressed as call centres, vendors, suppliers, providers, service providers, offshoring firms, outsourcers, outsourcing firms, business process outsourcing firms, knowledge process outsourcing firms and the like. As there is no consensus on the meaning of these labels, it leads to non-comparable research results and makes analysis of theory and practice difficult. Here, the various definitions of BPO firms, as derived from prior research, are analyzed to arrive at a more appropriate and generic definition of the BPO firm. Table 1 presents a review of definitions of BPO firms compiled from outsourcing literature.

TABLE 1
Defining Business Process Outsourcing Firms

Author/s (year)	Definition of Outsourcing Firms
Quinn, Doorley & Paquette (1990)	Independent companies that specialize in particular service activities, automate them and create higher value-added at lower costs than all but a few integrated companies can attain.
Quinn, Doorley & Paquette (1990)	Large, capital-intensive, technology-dominated organizations on which companies from almost all industries depend for specialized knowledge and assistance
Venkatesan (1992)	Supplier firms that have a distinct comparative advantage (vis-à-vis client organizations) in terms of greater scale, fundamentally lower cost structure, or stronger performance incentives
Taylor & Bain (1999)	A call centre is a dedicated operation in which computer utilizing employees receive inbound or make outbound telephone calls, with those calls processed and controlled either by an Automatic Call Distribution (ACD) or predictive dialing system
Logan (2000)	Companies that use their expertise in their core competency to provide services to other organizations
Houlihan (2000)	Call centres are centralized, specialized operations for both inbound and outbound communication handling
Houlihan (2001)	Call centres are centralized operations where trained agents communicate with customers via phone and using purpose built information and communication technologies
Ramesh (2004)	Firms that handle a host of back office work which includes responding to credit card enquiries, preparation of invoices, pay rolls, cheques, reconciliation of daily accounts, writing medical transcriptions, processing applications, billings and collections.
Gottfredson, Puryear & Philips (2005)	Outsourcers are more-qualified partners who provide critical functions which allows companies to enhance the core capabilities that drive competitive advantage in their industries
Sprigg & Jackson (2006)	A call centre is a work environment in which the main business is mediated by a computer and telephone-based technologies that enable the efficient distribution of incoming calls (allocation of outgoing calls) to available staff, and permit the customer-employee interaction to occur simultaneously with the use of display screen equipment and the instant access to, and inputting of information. It includes parts of companies dedicated to this activity, as well as whole companies that specialize in such services
Desai (2007)	ITES traditionally involves providing voice based services to the customers of clients such as handling trouble shooting calls, managing certain business processes such as payroll management and accounting. It also includes activities such as research and development which require higher intellectual capabilities
Gunta (2007)	ITES-BPO firms or outsourcing service providers mainly consist of call centres, conversion services, back office operations, transaction processing and data processing, it spans several industries, covers niches like medical transcription, and increasingly has a software development component as a part of process improvements

Following Espino-Rodríguez & Padrón-Robaina (2006) a more generic definition of the “business process outsourcing firm” is proposed by integrating the previous definitions

Business process outsourcing firms are higher capability firms that provide determined non-strategic activities or business processes or human resources, necessary for the manufacture of goods or provision of services, by means of agreements or contracts with client organizations, with the aim of improving the clients' competitive advantage.

This definition has few important characteristics:

- a. It recognizes business process outsourcing firms as supplier firms with capabilities and skills superior to those of the client firm.
- b. The client firm is able to define which activities or business processes are candidates for outsourcing.
- c. These activities or business processes are non-strategic for the client firm.
- d. The outsourcing process impacts the client firm's competitive advantage.

Work design in BPO firms

Early literature on organizational design of call centres was uniformly pessimistic. This is reflected in the metaphors used for these firms such as “*electronic sweatshops*” (Garson, 1988) or “*assembly lines in the head*” (Taylor & Bain, 1999). The basic contention was that call centres constituted a wired world amenable to constant surveillance where employees were straitjacketed into rigid routines and schedules. This observation was in stark contrast to another prevalent view that call centres were “knowledge-intensive organizations”, where work was centered around information technology, workers were empowered and *work was liberating* (Winslow & Bramer, 1994).

Frenkel, Tam, Korczynski and Shire (1998) studied both these views and said neither presented a true picture of reality. They studied the work, employment and control relationships of six call centres and presented a model labeled as *mass customized bureaucracy*. It was a hybrid model characterizing a form of work organization that remained primarily bureaucratic, but included elements associated with professional or knowledge-intensive settings (Frenkel et al., 1998). They suggested this hybrid form of work organization provided a base for standardization coupled with flexibility required for customization. The important contribution of this study is

that it used distinctive variables such as work, employment and control relationships to define the organizational design of call centres. However, a significant limitation is that once again researchers failed to recognize the differences in call centre work settings and ended up categorizing them as one homogenous lot, that is, a mass customized bureaucracy.

Taylor and Bain (2001) challenged Frenkel, Tam, Korczynski and Shire's (1998) findings through their research. According to Taylor & Bain (2001), as there were call centres that resembled 'white collar factories', there were also call centres where work was multi-tasked, flexible and involved product knowledge. Taylor and Bain (2001) characterized the former as quantity call centres and the latter as quality call centres (see Hutchinson, Purcell and Kinnie, 2000; Wickham & Collins, 2004). The major difference between these two types of call centres lay in the emphasis they placed on "hard", quantitative aspects of employee tasks vs. "soft", qualitative areas of employee-customer interaction. Their basic premise, that a conflict exists between quantitative and qualitative targets, holds true, but only to a certain extent. The categorization is inappropriate since call centres do not focus solely on either quantitative or qualitative targets but rather "manage" both kinds of targets, and recognize that lending exclusive priority to one over the other does not translate into effective performance.

Another important classification of work organization in BPO firms has been presented by Batt & Moynihan (2002). They distinguished BPO firms on the basis of the production models used along four dimensions: the use of technology, the skill requirements of jobs, the organization of work and the use of HR incentives to reward effort. On the basis of these dimensions, they outlined three alternative models, which varied on a continuum in terms of investment in human capital and HR incentives (Batt & Moynihan, 2002). At the low end was the classic mass production model while at the high end was the professional service model. Between the two extremes was a range of hybrid models that they labeled as mass customization model.

Around the same time, Houlihan (2002) on the basis of a review of former literature on work design in BPO firms (Frenkel et al., 1998; Kinnie, Hutchison & Purcell, 2000; Hutchison et al., 2000; Callaghan & Thompson, 2002; Wallace, Eagleson & Waldersee, 2000; Batt & Moynihan, 2002) came up with an interesting perspective. According to her, BPO firms seek to balance the logic of efficiency and cost effectiveness. This tension reveals itself in a series of conflicts, namely, between costs and quality, between flexibility and standardization and

between constraining and enabling job design. The manner in which these tensions are managed has implications for management strategies used by the organization.

The typology presented by Houlihan (2002) distinguished management strategies in call centres on the basis of comparison on three broad dimensions – work organization, employment relations (i.e. high commitment oriented policies and practices) and control relations. These were influenced by Frenkel et al.'s (1998) dimensions. The four strategies of work organization that emerged from Houlihan's (2002) research were containment, alleviation, structured employee development, and involvement. The limitation of both Batt & Moynihan's (2002) and Houlihan's (2002) work is that they focus on low discretion, highly routinized call centre work, which could be only one of the activities conducted by a business process outsourcing firm. In addition, they are unable to correlate their findings to any objective organizational performance measure.

To summarize the gaps in research, while the early phase in outsourcing was characterized by offering of lower-end processes, piece-meal projects and limited use of technology, the succeeding phases have transcended these to provide improved processes and an end-to-end business process service model. BPO firms are now making a fundamental impact on clients' businesses. However, by and large, research has focused on the call centre operations of BPO firms and has failed to appreciate the vast variety of services offered by these firms. With the evolution of the business process outsourcing model there is a need to reexamine the complexities of these firms.

Batt (2002) points out that most studies on call centres *examine a limited number of management practices*, focusing only on particular facets of work, such as electronic monitoring of performance. There is a need to move beyond the issues of constant surveillance and incorporate other measures of work environment in the study of BPO firms.

Another significant limitation of these studies is that they *fail to link managerial practices to objective performance measures*. Infact, the crucial dependent variable, "*outsourcing success*" *has still not been operationalized in literature* (Looft, 1995). When examined from the vendor's perspective, most studies on BPO firms *limit themselves to one or two outcome measures*. *Within their population, BPO firms vary greatly in terms of performance and growth*. It is

imperative to understand what contributes to the tremendous performance of some firms while others are left struggling for survival. Research in this area has, at best, produced mixed and inconclusive results.

Finally, there is evidence of *problems in sample selection* too. Most research has been conducted using a case study based approach or is derived from anecdotal literature. There is a lack of rigorous empirical research in the area that makes generalization impossible. As mentioned earlier, definitional inconsistency also contributes to inconsistent sample selection (VanderWerf & Brush, 1989), and this is especially true of outsourcing research. Samples have ranged from call centres at one extreme to outsourcing firms offering higher value, knowledge-intensive processes, all of which have been used interchangeably in studies of business process outsourcing firms.

Based on the identified gaps, this paper examines the following research questions:

1. What managerial systems, practices and processes could contribute to a better understanding of work design in BPO firms?
2. Would gestalts of BPO firms emerge based on relevant work design dimensions?

RESEARCH VARIABLES

Work Design

The study of work design in the context of BPO firms has been a very fertile area with respect to research on outsourcing. Researchers have been extremely interested in the various ways in which BPO firms structure themselves and manage their human resources. While this has led to some interesting findings, it has also created a highly fragmented research field with researchers studying just one or two aspects of work design. Further, many of these studies are just descriptive enquiries of a few call centres and the findings are not related to any organizational outcomes. A review of important research on work designs of BPO firms and the underlying dimensions studied is given in Table 2.

TABLE 2
Dimensions of Work Design

DIMENSION	AUTHOR (YEAR)											
	Frenkel et al (1998)	Batt (1999)	Taylor & Bain (1999)	Batt & Moynihan (2002)	Houlihan (2002)	Mulholland (2002)	Hyman et al. (2003)	Zapf et al. (2003)	Batt, Doellgast & Kwon (2006)	Budhwar, Varma, Singh & Dhar (2006)	Sprigg & Jackson (2006)	Wood, Holman & Stride (2006)
Career development (or career opportunities)	X	X			X					X		
Communication			X									
Compensation practices		X		X					X	X		
Conflict			X					X				
Control	X				X	X	X	X	X		X	
Customer abuse										X		
Discretion		X		X	X			X	X			X
Emotional Labour								X				
Employee resistance			X			X						
Employment security		X		X								
External coordination		X										
Flexibility (job descriptions, roles)												X
Focus on employee health										X		
Gender issues						X						
Interdependence	X											
Job enrichment										X		
Job rotation					X							
Job stressors								X				
Knowledge requirements	X											

	Frenkel et al (1998)	Batt (1999)	Taylor & Bain (1999)	Batt & Moynihan (2002)	Houlihan (2002)	Mulholland (2002)	Hyman et al. (2003)	Zapf et al. (2003)	Batt, Doellgast & Kwon (2006)	Budhwar, Varma, Singh & Dhar (2006)	Sprigg & Jackson (2006)	Wood, Holman & Stride (2006)
Monitoring			X	X			X					X
Labour - management relations		X										
Organizational commitment										X		
Organization culture					X		X					
Participation		X		X		X		X	X			
Performance management					X					X		X
Recruitment & Selection	X											X
Reward system	X											
Role clarity											X	
Role conflict											X	
Skill (variety and utilization)	X	X		X			X				X	
Suggestion schemes												X
Supervisory support		X										
Task complexity								X				
Task variety							X				X	
Teamwork		X			X	X						
Technology		X										
Training	X			X	X							X
Work group relations		X								X		
Working conditions					X					X		
Work-life balance							X					
Workload								X			X	



pressures												
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Table 2 reveals the large number of dimensions studied in work design of BPO firms. There is a need to integrate these dimensions into more structured, parsimonious and internally coherent sets so that they can be effectively utilized to study organizational performance. Accordingly, these attributes were condensed into three broad dimensions based on their relevance and importance in the outsourcing context – task characteristics, communication and human resource practices. A discussion of each of these dimensions is presented in the following sections.

Task characteristics comprised of four underlying attributes of tasks i.e. task variability, task analyzability, task interdependence and emotional labour. **Task variability** referred to the frequency of exceptions or novel events encountered in one's work (Perrow, 1967). **Task analyzability** referred to the extent to which there is a known procedure that specifies the sequence of steps to be followed in performing the task (Bensaou & Venkatraman, 1995; Perrow, 1967). **Task interdependence** was understood as the extent to which personnel are dependent upon one another to perform their tasks (Thompson, 1967). Finally, **emotional labour** was defined as the extent to which employees have to regulate their behaviour in order to meet organization's expectation specific to their roles (Brotheridge & Lee, 2003). These expectations relate to frequency of emotion display, variety of emotions to be expressed and the acting required to carry out the task.

Communication is the processing and interpreting of messages, information, meaning and symbolic activity within and between organizations (Jablin & Putnam, 2001). The communication dimension was conceptualized at the organizational level and did not include communication concepts relating to communication between individuals. Accordingly, the dimension of organizational communication comprised of directionality of information flow (Roberts & O'Reilly, 1974), information accessibility (Goldhaber & Rogers, 1979, Wiio, 1977), channel multiplicity, information adequacy (Goldhaber & Rogers, 1979, Wiio, 1977), feedback (Downs & Hazen, 1977) and satisfaction (Downs & Hazen, 1977; Goldhaber & Rogers, 1979; Roberts & O'Reilly, 1974; Wiio, 1977). **Directionality of information flow** referred to the existence of upward, downward and lateral communication channels in the organization. **Information accessibility** referred to the amount of information available through **multiple channels** in the organization. **Information adequacy** included the issues on which information was received i.e. organization's policies and practices, financial position of the firm, organization change, information on employee-related initiatives and task related

information, and adequacy of this information. **Feedback** referred to the availability of a feedback loop by which employees could voice their suggestions and grievances to the organization. **Satisfaction** referred to the overall satisfaction with the availability of information in the organization.

The assumption that HR practices are likely to lead to higher employee performance, and improved organizational performance has been explored extensively in strategic human resource management literature (Hutchison, Purcell & Kinnie, 2000; Peccei & Rosenthal, 1997; Schneider & Bowen, 1993; Schlesinger & Heskett, 1991). These HR practices, called High Commitment Management (HCM) or High Performing Work Systems (HPWS), typically include recruitment practices, reward systems, training and promotion, and methods of communication (Wood & de Menezes, 1998). However, most researchers agree that these practices have a much stronger effect when they are used in combination, or what are usually referred to as 'bundles', than when are used singly (Ichniowski et al., 1995; Hutchison et al., 2000; MacDuffie, 1995). Hence, practices pertaining to recruitment, performance management, training, career development, and work-life balance were selected in order to arrive at specific 'bundles' of HR practices, as they existed in the outsourcing context.

Accordingly, **HR practices** referred to practices related to recruitment, performance management, training, career development and work-life balance policies (Bae & Lawler, 2000; Datta, Guthrie & Wright, 2005; Edwards, Scott & Raju, 2003; Farren & Kaye, 1996; Fey, Björkman, & Pavlovskaya, 2000; Guest, Michie, Conway & Sheehan, 2003; Huselid, Jackson & Schuler, 1997; Hyman, Baldry, Scholarios & Bunzel, 2003; Ichniowski, Shaw & Prennushi, 1995, 1997). **Recruitment** referred to the recruitment practices and human resource flow in the organization. **Performance management** included the frequency of performance appraisal, communication of performance, parameters of performance measured, and sources of performance feedback. **Training** included both on-the-job and off-the-job training opportunities. **Career development** referred to a formal system that provided information, advice and avenues for career growth in the organization. **Work-life balance policies** referred to the support provided by the organization to employees so that they were able to effectively juggle the work and non-work parts of their life.

Sinha & Van de Ven (2005) have argued for a renewed focus on work design given the complexity of knowledge intensive services. Barley & Kunda (2001) also emphasized on

“bringing work back” into the study of organizations because of its direct impact on individual performance and aggregate productivity of the organization. At the same time, researchers also recognize that it is not appropriate to articulate universal work design principles (Sinha & Van de Ven, 2005). For instance, Mintzberg, (1983) and Doty, et al. (1993) did not agree with the notion that only one work design approach in a given environment would lead to effective outcomes across organizations. Instead, they proposed that organizations adopting the design appropriate for their context would be more effective than organizations adopting inappropriate designs.

A few outsourcing studies have tried to examine “fits” between elements of work systems in call centres (see Batt, 2000; Batt & Moynihan, 2002; Batt et al., 2005; Houlihan, 2002). Houlihan’s (2002) typology of call centres, though based on a study of only four call centres, provides an important insight into the various possible classifications of BPO firms. According to her, the strategy used by BPO firms to balance the underlying conflict between costs and quality, between flexibility and standardization and between constraining and enabling job design, has implications for its work design. On the basis of three broad dimensions, work organization, employment relations and control relations, she identified four strategies of work organization i.e. containment, alleviation, structured employee development, and involvement. Apart from a small sample size, another limitation of Houlihan’s (2002) work is that it focused on low discretion, highly routinized call centre work, and did not take into account other complex forms of BPO firms. In addition, she did not correlate her findings to any objective organizational performance measure. However, Batt (2000) and Batt & Moynihan (2002) found an association between one component of work system, that is, human resource practices and organizational performance. Following these initial leads, it was hypothesized that *it would be possible to identify significantly different gestalts of BPO firms based on their work design dimensions*.

METHOD

RESEARCH DESIGN

This study aimed to identify gestalts of BPO firms based on a set of organizational design determinants. Hence, an exploratory approach was proposed that would use inductive methods to identify relevant organizational variables, which could help classify outsourcing organizations. A related objective was to also examine if the proposed alignments between these

variables was associated with better performance in the context of BPO firms. In this case, a descriptive research design was deemed more appropriate to create data structures that uncovered the relationship between configurations of BPO firms and their performance. Hence, a combination of exploratory as well as descriptive research designs was chosen to achieve the objectives of the study.

A mixed-method approach, involving both survey and semi-structured interviews, was used to investigate the proposed research questions. The study chose to move away from the dichotomy of quantitative and qualitative research methodologies towards a pluralistic methodology. It used an in-depth approach in which key constructs and processes were examined using more than a single methodology. One of the important advantages of this method was that it allowed flexibility to collect data not only on the variables being studied but also on their underlying dimensions through in-depth interviews. This approach also helped in the process of theory building by providing meaningful insights into the relationships between the constructs being studied. It encouraged the discovery of new and sometimes even paradoxical factors that influenced BPO firm performance. Data collected from a large sample of BPO firms through the survey enabled increased generalizability of results. Finally, this research design allowed triangulation to validate the data and results by combining a range of methods and respondents.

The sampling included multiple respondents in each BPO firm so that enough variance could be captured in the data. Given the sensitive nature of information required, multiple respondents increased the likelihood of candid responses by lending anonymity to the respondents. It also allowed the study to capture the “shared perceptions” of the employees and thus reduced the overall perceptual bias in responses.

SAMPLE SELECTION

For most part, prior research has analyzed outsourcing from the client’s perspective. This has lead to a one-sided view of the outsourcing phenomenon and associated constructs. The current study was designed to expand the perspective from which outsourcing is viewed in management research by focusing on the BPO firm. Hence, the unit of analysis for this study was the business process outsourcing firm. A brief research proposal was sent to BPO companies registered with NASSCOM, firms in CMIE database, lists of Chambers of Commerce & Industry (Bengal Chamber of Commerce & Industry, South Gujarat Chamber of Commerce & Industry, Madras

Chamber of Commerce & Industry), lists of companies registered with STPI (in Kolkata, Chandigarh, Mohali, Panchkula, Ludhiana, and Jalandhar). Ninety-seven organizations responded to the proposal. A further elaboration of the research requirements and methodology led thirty-two organizations to withdraw from the study. Four organizations were dropped from the sample due to provision of incomplete data. Finally, organizations that were less than two years of age were also dropped from the sample.

The final sample consisted of 60 organizations from 13 cities of India namely Kolkata, Chennai, Bangalore, Hyderabad, Mumbai, Surat, Vadodara, Delhi, Noida, Gurgaon, Chandigarh, Mohali, and Panchkula. In each organization, data was collected from multiple respondents at two levels – at least one senior Human Resource manager, at least ten non-managerial employees, at least three members of top management team.

SURVEY INSTRUMENT AND MEASURES

The questionnaire for the survey was developed in multiple stages. First, a review of the relevant literature was conducted to identify existing scales used in empirical research. Wherever available, previously validated scales were chosen and modified. Where no standardized measures were available, new items were developed using the theoretical definition of each construct and a review of important conceptual literature. Multiple items were identified to measure each construct in order to increase the reliability of the survey instrument.

Once the list of items was developed, as a second step, the questionnaire was reviewed by five experts conversant with the constructs being studied. Based on their comments a few questions were added, deleted or reworded as necessary. The modified survey was presented to the experts to ensure that all requested changes were incorporated in the questionnaire.

In the third step, the research proposal was presented in a seminar in IIM Calcutta. This presentation allowed for a critique of the conceptual framework and research design of the study. Based on the feedback received, some minor revisions were made. An important contribution of this presentation was the refinement of organizational performance measures based on the comments. The revised questionnaire was reviewed one last time by two experts to ensure that the questionnaire was ready to be used in the field and that it required no further modifications.

The final survey instrument had two parts. Part A, which was administered to all respondents, had items related to demographic characteristics namely designation, age, gender, highest educational level attained, number of years of work experience, and employment status (i.e. part-time, contractual or full-time). It also collected information from top management team on the organization's year of establishment, number of employees in the organization and major business activities of the firm. Part B of the questionnaire had items related to work design and was administered to non-managerial employees.

In addition to the survey instrument, semi-structured interview schedules were also designed for use in interviews with senior Human Resource managers in each organization and at least three non-managerial employees in each firm.

Operationalization of Variables

Existing scales were adapted for this study whenever possible. However, given the exploratory nature of this research, and the fact that some variables have not been previously used in the outsourcing context, it was necessary to create measures for some variables. This was done by finalizing a working definition for those constructs, based on relevant literature and comments from faculty members. Construct definitions have been discussed in this section. Individual measurement items were then developed for each construct. With the exception of few, most items were measured on a seven-point Likert scale.

Work design

Work design comprised of three dimensions – task characteristics, communication and HR practices. Task characteristics were construed as a function of task analyzability, task variety, task interdependence and emotional labour. The 13 items on task characteristics were adapted from standardized scales used by Withey, Daft & Cooper (1983), Kiggundu (1983), Van der Vegt, Emans & Van de Vliert (2000), Brotheridge & Lee (2003).

Drawing on the work of Greenbaum et al. (1988), Roberts & O'Reilly (1974), Downs & Hazen (1977), Goldhaber & Rogers (1979, and Wiio (1977) six attributes of communication were identified that dealt with the efficacy of information exchange within the organization. These were directionality of information flow, information accessibility, information adequacy, channel multiplicity, feedback and satisfaction. 37 items capturing these six dimensions were selected of which 3 items were dropped after review and 34 items were included in the survey.

HR practices were seen as a combination of practices spanning recruitment, performance management, training, career development, and work-life balance policies. Based on previous research in human resource management and strategic human resource management (see Bae & Lawler, 2000; Datta, Guthrie & Wright, 2005; Edwards, Scott & Raju, 2003; Farren & Kaye, 1996; Fey, Björkman, & Pavlovskaya, 2000; Guest, Michie, Conway & Sheehan, 2003; Huselid, Jackson & Schuler, 1997; Hyman, Baldry, Scholarios & Bunzel, 2003; Ichniowski, Shaw & Prennushi, 1995, 1997), 62 items related to human resource systems were designed. After a rigorous review process, 6 items were dropped and 56 items were retained for inclusion in the final survey instrument.

The final work design questionnaire comprising of 103 items was administered to at least 10 non-managerial employees in each firm.

ANALYSIS

DISTRIBUTION DIAGNOSIS

The data was first screened for missing values and outliers (Meyers, Gamst & Guarino, 2006; Tabachnick & Fidell, 2001). Next, a composite variable index was formed for the work design variables ($\alpha = .994$). A one-way analysis of variance was performed on this index to determine if there was a greater variability in the ratings between organizations than within organizations (Smith et al., 1994; Winer Brown & Michels, 1991). The *F*-ratio was significant at an alpha level of $p < .001$. Intraclass correlation coefficient (ICC) was also calculated using a Two-Way Random Effect Model (Absolute Agreement Definition), which exceeded the acceptable threshold of ICC = .7 (Cohen, 2007, James, Demaree & Wolf, 1984; Smith et al., 1994; Winer et al., 1991; Wuensch, 2007).). These findings revealed that responses were sufficiently homogenous for within group aggregation.

The data set was next tested for normality using histograms and normality plots with Kolmogorov-Smirnov and Shapiro-Wilk tests (Meyers, Gamst & Guarino, 2006). As the skewness and kurtosis values were within the +1.0 to -1.0 range, they indicated a normal distribution of item scores. The Kolmogorov-Smirnov and Shapiro-Wilk tests were not significant at a stringent alpha level of $p < .001$, which demonstrated that normality

assumptions were not violated. These findings were supported by graphical approaches, i.e. histograms with normal distribution curve and normal Q-Q probability plots.

FACTOR ANALYSIS OF WORK DESIGN VARIABLES

As discussed earlier, work design of BPO firms was conceptualized as a function of the task characteristics, communication and HR practices of the organization. The underlying patterns or relationships in task characteristics, communication and HR practices data were first examined through factor analysis. Factor Analysis is a process that helps to identify the few components, factors or dimensions that underlie a larger set of variables. Factor analysis was used in this study, for three reasons, primarily:

1. As a data reduction technique, factor analysis helped reduce the large number of variables being studied to a smaller set of meaningful factors. These factors accounted for the maximum variance in these variables.
2. The next step in analysis, i.e. clustering of variables, required a similarity measure to correct for interdependencies among variables as well as to reduce the extremity of outliers. Punj and Stewart (1983) recommend the use of principal components factor analysis with orthogonal rotation before cluster analysis to correct for interdependencies among variables.
3. Factor analysis also allowed for the factors to be treated as uncorrelated variables to satisfy multicollinearity assumptions underlying subsequent statistical procedures used to examine significant differences in the performance of BPO firm configurations (www.chass.ncsu.edu/garson/pa765/factor.htm).

The task characteristics items were first tested on their appropriateness for factor analysis. An R-Mode principal components analysis with VARIMAX rotation was carried and task characteristics factors were extracted. In the next step, a meaningful and relevant interpretation of the retained factors was attempted. Finally the reliability of these factors was established.

Appropriateness of task characteristics items for factor analysis

The appropriateness of the data set for factor analysis was tested through an examination of the correlation matrix and communalities, plotting of latent roots (i.e. scree plots), Bartlett's test of sphericity (1950, 1951), and Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy, MSA (Kaiser, 1970).

The correlation matrix indicated a homogenous set of items. The communalities table (Table 4) showed moderate to high communalities. Communality measures the percent of variance in a given variable explained by all the items jointly and may be interpreted as the *reliability of the indicator* (www.chass.ncsu.edu/garson/pa765/factor.htm). Here the communalities ranged from .618 to .839, which indicated that the data was appropriate for factor analysis.

TABLE 4
Communalities of Task Characteristics Items

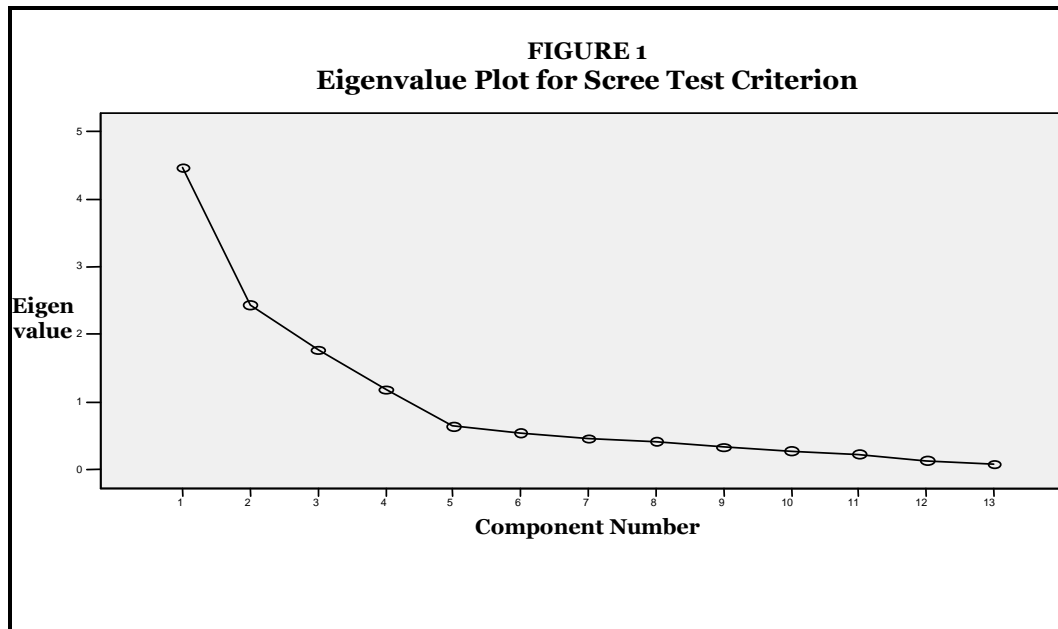
Task Characteristics Items	Initial	Extraction
Same tasks done in same way most of the time	1.000	.839
People in the unit do same job in same way most of the time	1.000	.817
Routine work to great extent	1.000	.821
Understandable sequence of steps that can be followed	1.000	.763
Established procedures and practices	1.000	.688
Clearly known way to do major types of work	1.000	.755
Information and advice needed from colleagues	1.000	.660
Rarely have to work with others	1.000	.802
Colleagues need information and advice	1.000	.799
Close work needed with colleagues	1.000	.618
Many different emotions expressed as part of job	1.000	.737
Pretend to have emotions as part of job	1.000	.765
True feelings hidden as a part of job	1.000	.794

A significant Bartlett's test of sphericity ($p < .001$) showed that there was sufficient correlation between the variables ((Meyers, Gamst & Guarino, 2006). Similarly, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy (MSA), was used to see the extent to which the variables belonged together. A MSA value of .676, which was above the acceptable threshold of .6 (Stewart, 1981; www2.chass.ncsu.edu/garson/pa765/factor.htm), indicated that this data set was appropriate for factor analysis. The results for KMO and Bartlett's test are given in Table 5.

TABLE 5
KMO and Bartlett's Test for Task Characteristics Items

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.676
Bartlett's Test of Sphericity	Approx. Chi-Square	422.831
	df	78
	Sig.	.000

A plot of the latent roots (scree plot) should ordinarily contain at least one sharp break (Stewart, 1981). Here, the scree plot (Figure 1) revealed sharp breaks, which were indicative of the point where the residual factors were separated from the “true” factors.



Principal components analysis with VARIMAX rotation

The 13 task characteristics items were analyzed using an R-Mode Principal Components Analysis (PCA) with VARIMAX rotation. Most researchers recommend the use of roots criterion method (eigenvalue greater than 1) in addition to the scree test to determine the number of factors (Stewart, 1981). The first four factors had an eigenvalue greater than 1.00. Tabachnick & Fidell (2001) suggest that a robust solution should account for atleast 50% of the variance. Here, the first three factors accounted for 66.71% of the variance and hence were retained. The rotated component matrix given in Table 6 shows the three-factor solution with factor loadings greater than 0.4.

TABLE 6
Rotated Component Matrix for Task Characteristics Items

Task Characteristics Items	Component		
	1	2	3
Same tasks done in same way most of the time	.825		
Understandable sequence of steps that can be followed	.824		
Routine work to great extent	.818		
People in the unit do same job in same way most of the time	.753		
Clearly known way to do major types of work	.733		
Established procedures and practices	.666		-.441
Colleagues need information and advice		.881	
Information and advice needed from colleagues		.704	
Close work needed with colleagues		.652	
Many different emotions expressed as part of job		.548	.419
Pretend to have emotions as part of job			.777
True feelings hidden as a part of job			.698
Rarely have to work with others		.526	-.670

Interpreting task characteristics factors

The 3 extracted factors were labeled as follows:

Factor 1: Routineness of task

The first factor included aspects of both task variability and task analyzability (Bensaou & Venkatraman, 1995; Perrow, 1967) and supported the routineness-nonroutineness dimension proposed by Perrow (1967). Highly routine jobs had fewer exceptions and lesser variety, while tasks with low routineness had more number of exceptions and higher variety. Similarly, well-defined tasks with easy-to-analyze problems pointed towards high routineness, while tasks that were ill-defined and regularly encountered difficult-to-analyze problems were low on routineness.

Factor 2: Task interdependence

The task interdependence factor was similar to the interdependence concept proposed by Thompson (1967). It referred to the extent to which group members had to exchange information and resources or actually work together to complete their jobs (Brass, 1985; Kiggundu, 1983; Thompson, 1967). The degree of task interdependence typically increased as the work became more difficult and the group members required greater assistance from each other to perform their jobs (Van Der Vegt, Emans & Van De Vliert, 2000)

Factor 3: Emotional labour

The emotional labour component referred to the extent to which employees had to pretend to have certain emotions and had to hide their true feelings as a part of their job. This regulation of behaviour was in tune with organization's expectations and was similar to the dimension of "surface acting" found in previous studies of emotional labour (Brotheridge & Lee, 2003).

Reliability of retained factors

The next important step was to establish the reliability of the items loading on each factor. Cronbach's alpha for factor 1 was .87, for factor 2 was .71, and for factor 3 was .82, which was considered adequate for further analysis (Nunnally, 1967). The reliability of the task characteristics factors and percentage of variance explained by them is given in Table 7.

TABLE 7
Reliability and Variance explained by Task Characteristics Factors

Task Characteristic Factors	Percentage of Variance Explained	Reliability
Routineness of task	34.34%	.87
Task interdependence	18.74%	.71
Emotional Labour	13.63%	.82
Total variance explained	66.71%	

Factor Analysis of Communication Items

The communication items were analyzed using similar factor analysis steps as discussed in the preceding section, the findings of which are presented in the following sections.

Appropriateness of communication items for factor analysis

An examination of the correlation matrix indicated a homogenous set of items. The communalities (as given in Table 8) ranged from .920 to .657 indicating moderate to high communalities, which affirmed the appropriateness of the data set for factor analysis.

TABLE 8
Communalities of Communication Items

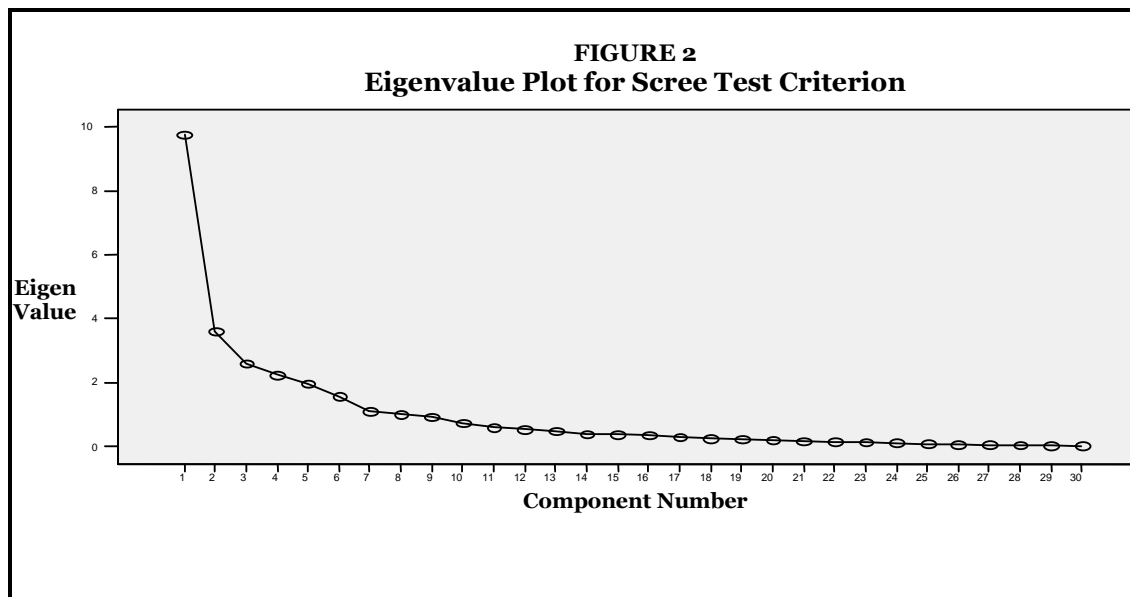
Communication Items	Initial	Extraction
Satisfaction with availability of information	1.000	.657
Amount of information received from top management	1.000	.836
Amount of information received from fellow employees	1.000	.812
Amount of information received from subordinates	1.000	.683
Amount of information received from staff meetings	1.000	.775
Amount of information received from company newsletters	1.000	.833
Amount of information received from bulletin boards	1.000	.884
Amount of information received from memorandums and reports	1.000	.819
Amount of information received from information systems	1.000	.763
Extent of information received about financial situation of organization	1.000	.762
Extent of information received about performance on job	1.000	.724
Extent of information received about training	1.000	.920
Extent of information received about employee benefits	1.000	.879
Extent of information received about employment opportunities	1.000	.699
Extent of information received about organization's goals	1.000	.794
Extent of information received about organizational changes	1.000	.824
Extent of information received about policies and practices	1.000	.888
Extent of information received about company's major products	1.000	.796
Need for improved communication from employees to management	1.000	.820
Need for improved communication from management to employees	1.000	.832
Need for improved communication with immediate supervisor	1.000	.809
Need for improved communication among fellow employees	1.000	.833
Need for improved communication between departments	1.000	.845
Employees can approach managers to talk about concerns	1.000	.786
Employees can make formal complaints	1.000	.671
Counseling sessions	1.000	.775
Exit interviews for those who leave	1.000	.791
Formal opportunities for submitting suggestions	1.000	.788
Employee surveys	1.000	.702
Opportunities for dialogue with top management	1.000	.805

The Bartlett's test of sphericity was significant ($p < .001$) which indicated that the variables were adequately correlated. The Kaiser-Meyer-Olkin test yielded a MSA value of .688. These test results (presented in Table 9) showed that the data set on communication was appropriate for factor analysis.

TABLE 9
KMO and Bartlett's test for Communication Items

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.688
Bartlett's Test of Sphericity	Approx. Chi-Square	1501.242
	df	435
	Sig.	.000

The scree plot (given in Figure 2) also showed sharp breaks at the separation point of the true and residual factors that further pointed to appropriateness of factor analysis of the items.



Principal Components Analysis with VARIMAX rotation

The 30 communication items were then analyzed using an R-Mode Principal Components Analysis (PCA) with VARIMAX rotation. The first eight factors had an eigenvalue that was greater than 1.00, which together accounted for 79.35% of the variance. However, since the ultimate goal of any factor analysis is not only the identification of interpretable factors but also a simple and parsimonious solution (Stewart, 1981), the first four factors accounting for 60.58% of the variance were retained for further analysis. The rotated component matrix showing the four factor solution with factor loadings greater than 0.4 is given in Table 10.

TABLE 10
Rotated Component Matrix for Communication Items

Communication Items	Component			
	1	2	3	4
Extent of information received about policies and practices	.786			
Extent of information received about employment opportunities	.768			
Extent of information received about organization's goals	.761			
Extent of information received about company's major products	.730			
Extent of information received about employee benefits	.624			
Extent of information received about financial situation of organization	.607			
Amount of information received from top management	.604			
Extent of information received about organizational changes	.598	.509		
Satisfaction with availability of information	.596			
Extent of information received about performance on job	.572			
Counseling sessions	.527			
Opportunities for dialogue with top management	.522			.520
Amount of information received from information systems	.481	.439		
Need for improved communication among fellow employees		.889		
Need for improved communication from employees to management		.872		
Need for improved communication from management to employees		.790		
Need for improved communication with immediate supervisor		.618		
Need for improved communication between departments		.603		
Exit interviews for those who leave		.436	.430	
Amount of information received from bulletin boards			.787	
Amount of information received from company newsletters			.760	
Amount of information received from fellow employees			.742	
Amount of information received from staff meetings			.734	
Amount of information received from memorandums and reports	.411		.713	
Amount of information received from subordinates			.640	
Extent of information received about training	.521		.521	
Employees can make formal complaints				.758
Employees can approach managers to talk about concerns				.677
Employee surveys				.532
Formal opportunities for submitting suggestions		.469		.506

Interpreting the communication factors

The four communication factors were labeled as follows:

Factor 1: Accessibility of information

Accessibility of information referred to the extent of information available on a variety of employee and organizational level issues within the organization, such as organization's policies

and practices and information on employee-related initiatives. It also included the employee's satisfaction with the overall availability of information in the organization.

Factor 2: Adequacy of communication

Adequacy of communication pointed to the sufficiency of communication among colleagues, between employees and management, with immediate supervisor, and within the organization.

Factor 3: Multiplicity of information channels

Multiplicity of information channels referred to the amount of information received through multiple channels within the organization. These included both formal (bulletin boards, memorandums and meetings) and informal (fellow employees and subordinates) channels of communication.

Factor 4: Opportunity for feedback

Opportunity for feedback referred to the availability of a feedback loop by which employees could voice their suggestions and grievances to the organization, for example, through formal complaints, employee surveys and suggestion schemes.

Reliability of retained factors

Cronbach's alpha for factor 1 was .90, for factor 2 was .88, for factor 3 was .87 and alpha for factor 4 was .66 – all of which were well above the acceptable cut-off level (0.6). The reliability of the communication factors and percentage of variance explained by them is given in Table 11.

TABLE 11
Reliability and Variance explained by Communication Factors

Communication Factors	Percentage of Variance Explained	Reliability
Accessibility of information	32.49%	.90
Adequacy of communication	12.01%	.88
Multiplicity of information channels	8.63%	.87
Opportunity for feedback	7.45%	.66
Total variance explained	60.58%	

Factor Analysis of HR Practices Items

As the third step in the analysis of work design variables, items pertaining to HR practices were analyzed to detect underlying relationships.

Appropriateness of HR practices items for factor analysis

The correlation matrix and anti-image correlation matrix revealed 10 items with low correlations. These 10 items with correlations less than .3 were dropped from further analysis (Hair, Anderson & Tatham, 1987). The communalities on the remaining HR items ranged from .839 to .599 (as given in Table 12), and hence the data was considered appropriate for further analysis.

TABLE 12
Communalities of HR Practices Items

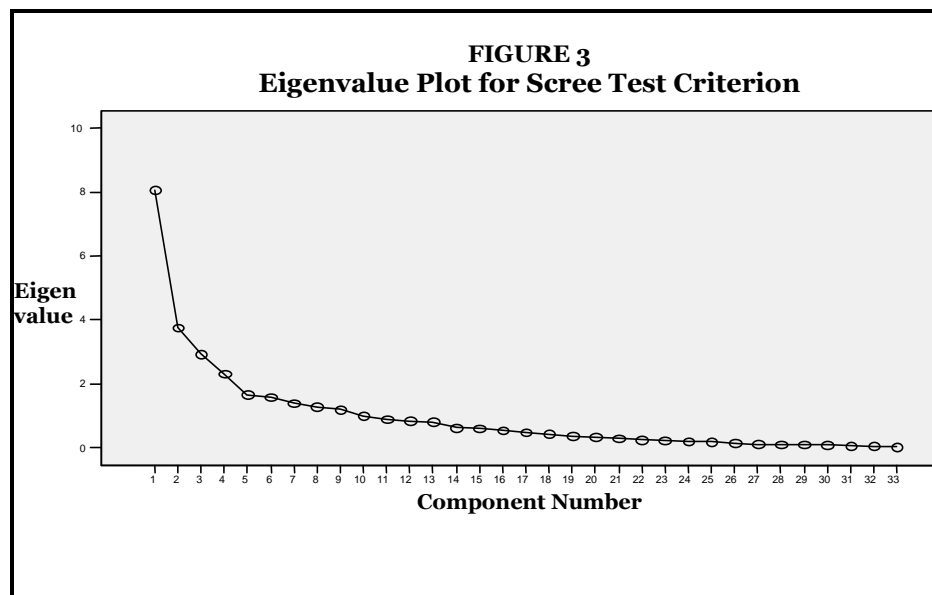
HR Practices Items	Initial	Extraction
Organization provides a preview of work during recruitment	1.000	.677
Organization provides information on negative aspects during recruitment	1.000	.749
Recruits given ability or psychometric test during selection	1.000	.723
Organization fills vacancies at non-managerial level from external sources	1.000	.644
Employees receive informal feedback throughout the year	1.000	.677
Employees have opportunity to participate in setting expected results	1.000	.692
Employees understand how success will be measured	1.000	.839
Results of performance appraisal are linked with other HR systems	1.000	.771
Multiple sources supply input to performance appraisal	1.000	.630
Training on product and technology related course	1.000	.746
Training on customer service skills	1.000	.831
Training on behavioural skills	1.000	.855
Special assignments within organization to learn new skills	1.000	.764
Special assignments to client organizations to learn new skills	1.000	.837
Sabbaticals for pursuing higher education	1.000	.685
Organization sponsored courses to enhance skills and advance education	1.000	.691
Job rotation from one position to similar position in different department	1.000	.626
Succession planning used to identify candidates for key positions	1.000	.769
Advice on career options available	1.000	.748
Variety of desirable career options are available	1.000	.719
Career prospects are not exactly clear	1.000	.760
Pay during maternity leave	1.000	.787
Paternity leave	1.000	.599
Formal policy that allows to return to work gradually after child-birth	1.000	.737
Flexibility in moving from full-time to part-time work	1.000	.671
Opportunity to occasionally work-from-home	1.000	.767
Time off to attend school and childcare functions	1.000	.796
Leave to care for seriously ill children	1.000	.795
Medical facilities for ill children of employees	1.000	.685
State-of-art recreational facilities such as gymnasiums, cafes etc	1.000	.802
After-office hours parties and celebrations	1.000	.711
Stress reduction and relaxation programmes	1.000	.704
Programmes for children of employees (seminars, workshops, scholarships)	1.000	.694

The significant Bartlett's test of sphericity ($p < .001$) indicated sufficient correlation between the variables. The Kaiser-Meyer-Olkin test's MSA value of .57 showed that the HR practices items could be factor analyzed to extract underlying factors (Stewart, 1981; <http://www2.chass.ncsu.edu/garson/pa765/factor.htm>). The results of KMO and Bartlett's test are given in Table 13.

TABLE 13
KMO and Bartlett's test for HR Practices Items

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.573
Bartlett's Test of Sphericity	Approx. Chi-Square	1236.705
	Df	528
	Sig.	.000

The scree plot (given in Figure 3) with its sharp break in the region of 5 factors points to a possible four or five factor solution.



Principal Components Analysis with VARIMAX rotation

The 33 HR practices items were then analyzed using an R-Mode Principal Components Analysis (PCA) with VARIMAX rotation. Eigen values of first four factors accounted for 51.66% of variance and were retained in the interest of a meaningful but parsimonious solution in the

outsourcing context. The rotated component matrix of the four factor solution with factor loadings greater than 0.4 is presented in Table 14.

TABLE 14
Rotated Component Matrix for HR Practices Items

HR Practices Items	Component			
	1	2	3	4
Employees understand how success will be measured	.716			.407
Organization provides information on negative aspects during recruitment	.712			
Recruits given ability or psychometric test during selection	.695			
Training on customer service skills	.643			
Employees have opportunity to participate in setting expected results	.635			.423
Organization provides a preview of work during recruitment	.586			
Variety of desirable career options are available	.560			.494
Training related to product and technology	.554	.439		
Special assignments to client organizations to learn new skills	.501			
Training on behavioural skills	.410			
Employees receive informal feedback throughout the year				
State-of-art recreational facilities such as gymnasiums, cafes etc		.698		
Stress reduction and relaxation programmes		.674		
Organization sponsored courses to enhance skills and advance education		.638		
Programmes for children of employees (seminars, workshops, scholarships)		.631		
Pay during maternity leave		.582		
Formal policy that allows to return to work gradually after child-birth		.553	.435	
Sabbaticals for pursuing higher education		.548		
Job rotation from one position to similar position in different department		.524		
Medical facilities for ill children of employees		.502		
Time off to attend school and childcare functions			.760	
Leave to care for seriously ill children			.715	
Flexibility in moving from full-time to part-time work			.687	
Opportunity to occasionally work-from-home			.628	
After-office hours parties and celebrations			.608	
Paternity leave			.594	
Multiple sources supply input to performance appraisal			.576	
Succession planning used to identify candidates for key positions				.786
Career prospects are not exactly clear (reverse-coded)				.738
Results of performance appraisal are used for other HR practices				.718
Advice on career options available	.554			.563
Special assignments within organization to learn new skills				.454
Organization fills vacancies at non-managerial level from external sources				.450

Interpreting the HR practices factors

The four HR factors were labeled as follows:

Factor 1: Proactive HR practices

This dimension focused on transparency in HR practices and an active approach to employee participation and training. For example, it included communication with regard to success parameters and a preview of work including its negative aspects. At the same time it emphasized employee participation in setting targets and availability of training opportunities for enhancing a variety of skills.

Factor 2: Focus on employee well-being

The dimension related to employee well-being had not emerged in previous studies of outsourcing firms. Factor 2 included formal policies aimed at holistic development and personal satisfaction of employees. For example, it comprised of stress reduction programmes to alleviate personal and work-related stress, recreational facilities such as gymnasiums and cafes, and medical facilities for children of employees. Additionally the factor took into account organizational initiatives for enhancing the employability of employees by offering sabbaticals for higher education and refresher courses.

Factor 3: Flexible work arrangements

The third dimension referred to the support provided to employees by the organization so that they were able to effectively juggle the work and non-work parts of their life. These included formal policies that allowed employees to take time off for emergencies, opportunity to work-from-home, and opportunity to shift to a part-time schedule.

Factor 4: Focus on career development

Focus on career development factor was similar to Farren & Kaye's (1996) career development concept. It referred to a proactive approach to providing information, advice and avenues for career growth in the organization. It also emphasized the linkage of performance appraisal to HR practices aimed at professional growth such as promotion, advancement, compensation, training and career development.

Reliability of retained factors

As shown in Table 15 Cronbach's alpha for factor 1 was .85, for factor 2 was .80, for factor 3 was .81 and alpha for factor 4 was .77 – all of which are well above the acceptable cut-off level (0.6).

TABLE 15
Reliability and Variance explained by HR Practices Factors

HR Practices Factors	Percentage of Variance Explained	Reliability
Proactive HR practices	24.41%	.85
Focus on employee well being	11.40%	.80
Flexible work arrangements	8.87%	.81
Focus on career development	7.01%	.77
Total variance explained	51.69%	

CLUSTER ANALYSIS OF WORK DESIGN FACTORS

The next step was to use the task characteristics, communication and human resource practices factors as input variables to identify clusters based on work designs of BPO firms. Previous studies have proposed cluster analysis as the primary statistic in configurational research (e.g. Lee, Miranda & Kim, 2004; Meyer, Tsui & Hinings, 1993; Miller & Friesen, 1984). Cluster analysis identifies and classifies variables such that each case is very similar to others in its cluster, with respect to some predetermined selection criteria. In other words, clusters are expected to exhibit high internal (within-cluster) homogeneity and high external (between-cluster) heterogeneity (Hair, Anderson & Tatham, 1987).

Since cluster analysis is extremely sensitive to the presence of outliers, Hair, Anderson & Tatham (1987) recommended elimination of observations more than 2.5 SD from mean. A preliminary screening showed the presence of no extreme outliers and the 11 work design factors were subjected to partitioning, interpretation and profiling as a part of cluster analysis.

Partitioning of Work Design Clusters

To arrive at a set of meaningful and relevant clusters, a two stage clustering approach was used. This method enabled determination of both an initial starting point and an appropriate number of clusters by using clustering methods that had demonstrated superior performance (Hartigan, 1975, Miligan, 1980, Punj & Stewart, 1983)

An investigation of cluster analysis techniques revealed that *K*-means method was considered superior in empirical comparisons of both hierarchical and non-hierarchical clustering methods

(Hair, Anderson & Tatham, 1987; Punj & Stewart, 1983). However, it was considered appropriate only when a non-random starting point could be specified. Hence, an agglomerative hierarchical clustering method, Ward's minimum variance, was first used in order to obtain an initial approximation of a solution. The clustering algorithm used by Ward's minimum variance method minimized the average distance within a cluster and appeared to outperform other hierarchical clustering methods in empirical studies (Hair, Anderson & Tatham, 1987; Punj & Stewart, 1983). The agglomeration schedule and dendrogram generated by Ward's method suggested in-depth examination of 3 to 4 clusters of work design. The next step involved a refinement of the cluster solution through an iterative partitioning method using *K*-means. The centroids for each hierarchical cluster solution were obtained and were used as initial seeds for the iterative partitioning method. On inspection, a four-cluster solution yielded the most stable and meaningful set of clusters and hence was retained for further analysis.

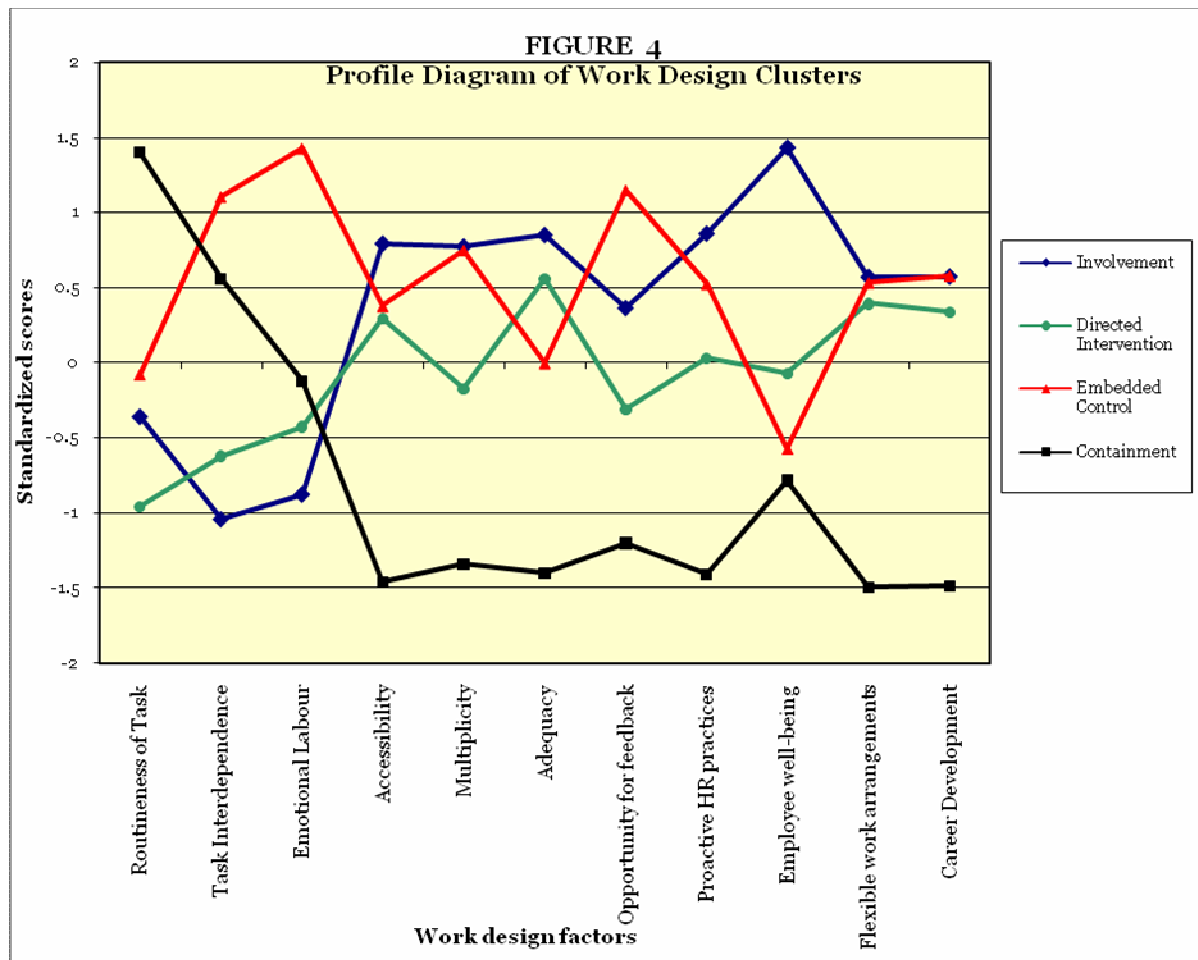
Interpretation of Work Design Clusters

This stage involved examining the clusters and assigning a label that accurately described the characteristics of the cluster. In order to facilitate interpretation of the four clusters, the cluster profile points were plotted. This method of graphing provided an anchor point from which the relative emphasis of a particular work design could be viewed.

The cluster means and profile diagram of the four-cluster solution are presented in Table 16 and Figure 4.

TABLE 16
Means of Work Design Clusters

WORK DESIGN FACTORS	CLUSTER 1	CLUSTER 2	CLUSTER 3	CLUSTER 4
	N = 17	N = 35	N = 6	N = 2
Routineness of task	5.17	4.65	5.41	6.67
Task interdependence	4.56	4.74	5.49	5.25
Emotional labour	3.27	3.70	5.53	4.00
Accessibility of information	4.53	3.90	4.00	1.69
Multiplicity of information channels	4.75	3.89	4.73	2.83
Adequacy of communication	3.17	2.89	2.35	1.00
Opportunity for feedback	0.68	0.60	0.77	0.50
Proactive HR practices	3.35	2.71	3.09	1.60
Focus on employee well being	0.48	0.30	0.25	0.22
Flexible work arrangements	0.38	0.35	0.37	0.00
Focus on career development	5.22	4.82	5.23	1.75



Profiling of Work Design Clusters

The profiling stage involved describing the characteristics of each cluster in order to understand how they differed on relevant dimensions. Since cluster analysis was performed using factor analysis components as input data, the raw scores for the original variables were used to compute average profiles of the clusters (Hair, Anderson & Tatham, 1987).

In order to facilitate interpretation of the four work design clusters, each variable within a cluster was examined relative to the global mean of that variable across clusters. The resulting combination of variables that contributed to a particular cluster was used to create a detailed profile of each of the four work design clusters. A brief overview of the cluster profiles is presented in the following section.

Cluster 1: Involvement

Cluster 1 represented 28.3% of the organizations and was distinguished by its *involvement* oriented work design. Tasks were low in routineness, but did not require high interdependence or investment in emotional labour. A variety of communication channels were available that provided avenues for upward, downward and lateral communication. Satisfaction with communication was high and employee surveys were conducted to gauge employee attitudes and employee concerns. HR systems were proactive and fostered transparency and employee participation. There was high degree of focus on career development and employee well being. Employees also had the opportunity to opt for flexible work arrangements in order to address work-life balance issues.

Cluster 2: Directed intervention

Cluster 2 formed the largest set with 58.3% of BPO firms in the sample as members. Tasks were characterized by low routineness, low interdependence and low investment in emotional labour. The highlight of this work design was its use of intervention techniques to alleviate issues that affected employee productivity, as and when they arose. Thus, while opportunity for feedback was not available and communication channels were usually top-down in their approach, these firms allowed transparency in policies and practices to facilitate employee performance. For example, employees were allowed to participate in setting performance targets, information on alternate career paths within the organization was available, and training assignments were scheduled at client sites to learn new skills. These firms also targeted employee problems that appeared to affect productivity. For example, stress reduction and relaxation practices were conducted on office premises and after-office parties and celebrations were the norm. The organization also provided opportunities to work-from-home, time off to care for seriously ill children or to attend school functions, and gradual return to work after child-birth. However, these were provided on a case-by-case basis and were not a result of formal policies.

Cluster 3: Embedded control

The *embedded control* work design represented 10% of total number of sample organizations. This approach sought to put in place an integrated system that facilitated task efficiency and effectiveness. Since tasks were non-routine, integration devices such as coordinative task arrangements and intensive vertical and horizontal communication were used to reduce uncertainty and promote a sense of control. Opportunity for feedback was provided to incorporate employee opinions and suggestions on any work-related issue. HR systems were

transparent in nature and adequate focus was placed on providing career opportunities. Flexible work arrangements were offered to enhance employee productivity. A distinguishing feature of this cluster was its lack of emphasis on employee well being. This was further highlighted by the fact that communication, which was otherwise satisfactory, provided very little information on employee oriented initiatives and benefits.

Cluster 4: Containment

Cluster 4 constituted 3.3% of organizations. These organizations were characterized by highly routinized job characteristics. High degree of task interdependence intensified the demands placed on employees with regard to emotional labour. Communication channels were considered inadequate and were restricted to informal channels. For example, most amount of information was received from fellow employees rather than through formal information channels. Additionally, grievance opportunities were limited to approaching an immediate supervisor in order to discuss complaints. HR practices were neither transparent nor encouraged employee participation. These firms could not offer attractive career opportunities within the organization. Some recreational facilities such as gymnasiums and cafes were put in place to contain the monotony and stress resulting from highly routine work. The small number of frequencies in this cluster could have lead to its dismissal through its interpretation as representing outliers (Everitt, 1993). But several different clustering procedures yielded this same cluster, which was indicative of its stability across clustering methods. Hence, following Speece, McKinney & Applebaum's (1985) recommendations, this profile was retained, as it appeared to describe a group of BPO firms with a unique work design.

Validation of Work Design Clusters

The next step was to demonstrate that the clusters arrived at were meaningful and differed significantly from a random solution. This was done by testing the reliability and validity of the cluster solution as well as its statistical significance (Punj & Stewart, 1983). Reliability was established through two cross-validation techniques – split-sample replication and discriminant analysis (Punj & Stewart, 1983; Speece, McKinney & Applebaum, 1985). External validity was examined by relating the clusters to variables other than those used to generate the cluster solution (Punj & Stewart, 1983).

Analysis of variance (ANOVA) was first used to assess if the group means of the clusters varied significantly from each other on the 11 work design factors. The *F*-ratios, as seen in Table 5.20,

indicated that the work design clusters were significantly different from each other with regard to routineness of task ($F = 12.683, p < .001$), task interdependence ($F = 6.166, p < .001$), emotional labour ($F = 22.016, p < .001$), accessibility of information ($F = 35.943, p < .001$), multiplicity of information channels ($F = 16.323, p < .001$), adequacy of communication ($F = 9.082, p < .001$), opportunity for feedback ($F = 2.404, p < .1$) proactive HR practices ($F = 15.130, p < .001$), focus on employee well being ($F = 6.338, p < .001$), flexible work arrangements ($F = 2.470, p < .1$), and focus on career development ($F = 45.138, p < .001$). The group means for the 11 work design factors and their significance is given in Table 17.

TABLE 17
Group Means and Significance Levels for Work Design Factors

	Sum of Squares	df	Mean Square	F	Sig.
Routineness of task	11.081	3	3.694	12.683	.000
Task Interdependence	4.366	3	1.455	6.166	.001
Emotional labour	23.058	3	7.686	22.016	.000
Accessibility of information	15.715	3	5.238	35.943	.000
Multiplicity of information channels	13.929	3	4.643	16.323	.000
Adequacy of communication	10.163	3	3.388	9.082	.000
Opportunity for feedback	.215	3	.072	2.404	.077
Proactive HR practices	8.360	3	2.787	15.130	.000
Focus on employee well being	.474	3	.158	6.338	.001
Flexible work arrangements	.262	3	.087	2.470	.071
Focus on career development	22.380	3	7.460	45.138	.000

Internal validation

Two internal validation methods, split-sample replication and discriminant analysis, were used to estimate the stability of the cluster solution across samples as discussed in the following sections.

Split-sample replication

For split sample replication, two thirds of the cases were randomly selected and re-clustered using a two-stage cluster analysis method as discussed in Section 5.3.1. Hierarchical clustering using Ward's minimum variance method pointed to a 3 to 4 cluster solution. The centroids of each of these clusters were calculated and used as initial seeds in an iterative partitioning method. The degree of agreement between the original cluster assignment and the cluster solution generated by the two-third sample was compared using a coefficient of agreement i.e.

Kappa coefficient. The results of reclassification of alongwith the kappa coefficients are presented in Table 18.

TABLE 18
Agreement Index for Cluster Reclassification

CLUSTER SOLUTION	3 CLUSTERS	4 CLUSTERS
Kappa Coefficient	.13	.57
Cases maintaining original membership	94.7%	97.4%

The kappa coefficient for a three-cluster solution was .13, which signified inadequate agreement between the original and reclassified solution. However, the four-cluster solution had a kappa coefficient of .57, which showed a moderately high degree of agreement between the original and reclassified cluster assignments (Landis & Koch, 1977). The validity of the four-cluster solution was further supported by the high degree of membership concordance (i.e. 97.4%) between the original and replication clusters.

Discriminant analysis

The sample was once again randomly split into 67% and 50% of the cases for the second cross-validation method, discriminant analysis. A discriminant function for each cluster was derived and the cases were classified into one of the clusters. The degree to which the assignments made with the discriminant functions agreed with the assignments made by cluster analysis of the whole sample served as an estimate of the stability of the cluster solution across samples (Punj & Stewart, 1983). A kappa coefficient was used to provide an objective measure of the stability of the clusters. Table 19 shows the results of classification through discriminant analysis and the associated kappa coefficients.

TABLE 19
Reclassification of Work Design Clusters using Discriminant Analysis

SAMPLE SIZE	PERCENTAGE OF ORIGINAL GROUPED CASES CORRECTLY CLASSIFIED	NO. OF CASES INCORRECTLY CLASSIFIED	KAPPA COEFFICIENT
Approximately 67% (n=44)	93.2%	2	.89
Approximately 50% (n=29)	96.6%	1	.95

The kappa coefficients of .8 and above revealed a very high degree of agreement between the original classification and cases classified by discriminant analysis in case of both 67% and 50% samples (Landis & Koch, 1977).

The predictive accuracy of the discriminant function was further assessed by calculating the *maximum chance criterion* and *proportional chance criterion* (Hair, Anderson & Tatham, 1987). This method compared the percentage of cases that could be classified correctly by the discriminant function and those that could be classified by chance (without the aid of the discriminant function). The *maximum chance criterion* (i.e. percentage of total sample represented by the largest of the four groups) was 45%. The *proportional chance criterion* (i.e. sum of squares of proportion of the four groups) was 31%. Since, *C-maximum* was greater than *C-proportional*, the classification result was compared to *C-maximum* (Hair, Anderson & Tatham, 1987). A hold-out sample method was not followed, hence an upward bias in the prediction accuracy was expected. In other words, the classification accuracy had to exceed *C-maximum* by at least 25% to validate the cluster solution (Hair, Anderson and Tatham's (1987). The hit ratio was thus calculated as $1.25 \times .45$, which equaled 56.25%. As seen in Table 5.23, the percentage of cases classified through a discriminant analysis of both 50% and 67% of original sample far exceeded the upward revised hit ratio. Thus, it can be said that the four-cluster solution of work design showed a high degree of classification accuracy.

External validation

The task of classifications could not be considered complete till the clusters had demonstrated usefulness in further understanding of the phenomena being studied (Punj & Stewart, 1983). While the cluster solution had acceptable internal stability, it was equally important to examine if the clusters differed on variables that were independent of the measures used for cluster formation (Punj & Stewart, 1983). The nature of business activity of each organization was used to analyze differences between the clusters. A chi-square test ($\chi^2 = 146.0$, $df = 3$, $p < .001$) showed that the clusters varied significantly based on types of business activities offered. Table 20 shows the results of external validation of the four-cluster solution.

TABLE 20
External Validation of Work Design Clusters

CLUSTERS	INVOLVEMENT		DIRECTED INTERVENTION		EMBEDDED CONTROL		CONTAINMENT	
Business Activity	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Combination of services	33.90	.68	33.24	1.23	.00	.00	25.21	.00
IT services	35.92	.82	32.25	1.42	36.80	3.52	25.21	.00
Financial services	36.30	.99	32.49	2.48	37.10	2.27	.00	.00
Healthcare services	.00	.00	32.81	.94	.00	.00	.00	.00
Market research services	.00	.00	33.57	.00	.00	.00	.00	.00
Human resource services	.00	.00	34.50	.00	.00	.00	.00	.00
Engineering services	34.13	.00	30.98	1.60	.00	.00	.00	.00
Travel related services	34.65	.00	33.23	0.00	.00	.00	.00	.00
Animation	.00	.00	32.50	.00	.00	.00	.00	.00
E-learning and publishing	.00	.00	33.20	.00	38.57	.00	.00	.00

As given in Table 20, *involvement* oriented work designs were found predominantly in IT services (29.41%), and financial services (41.48%), and in firms offering more than one service (17.65%). Similarly, *embedded control* and *containment* oriented work designs were found primarily in IT services (50% and 50% respectively) and financial services (33% and 50% respectively). However, the dominant work design across all business activities was *directed intervention*, which comprised (58.33%) of the total sample.

DISCUSSION

Dimensions of work design

Work design had three aspects – task characteristics, communication and HR practices. Three task characteristics factors were uncovered after factor analysis, which were routineness of task, task interdependence and emotional labour. *Routineness of task* took into account both task variability and task analyzability. This factor supported Perrow's (1967) findings that in organizations when problems were frequent and unexpected, they were also less analyzable. *Task interdependence* followed Van Der Vegt, Emans & Van De Vliert's (2000) conceptualization of "task interdependence" as both an individual level and group level

construct. It examined whether the degree of interdependence within and between work teams could vary based on the similarities or differences in individual roles. The dimension of *emotional labour* highlighted an important component of emotion work, which is surface acting (Brotheridge & Lee, 2003). Surface acting implied that employees tried to manage the visible aspects of emotions that appeared on the “surface” to bring them in line with the organizational display rules, while the inner feelings remained unchanged (Zapf, Vogt, Seifert, Mertini & Isic, 1999). In other words, it meant “pretending” to have the emotions expected to be displayed. This aspect was deemed as one of the core components of emotional labour by Brotheridge and Lee (2003) and was negatively associated with personal accomplishment and employee retention in their findings. An important point to be noted is that it was not in the discretion of the employee whether or not to express certain emotions in a job. Rather, acting was required by the organization and was an explicit or implicit rule (Zapf et al, 1999).

The communication factors that emerged had shown high validity in previous research. Some of the variables studied in literature combined with other variables to form a more parsimonious and meaningful set of factors. For example, “information accessibility” (Goldhaber & Rogers, 1979, Wiio, 1977) combined with “directionality of information flow” (Roberts & O’Reilly, 1974) to form an overall *accessibility of information* factor, while “adequacy of information” (Goldhaber & Rogers, 1979, Wiio, 1977) linked up with “satisfaction” (Downs & Hazen, 1977; Goldhaber & Rogers, 1979; Roberts & O’Reilly, 1974; Wiio, 1977) to form an overall *communication adequacy* dimension. Besides these, two other aspects of the communication system were also found to be important. These were *multiplicity of information channels* and *opportunity for feedback*.

As expected, HR practices pertaining to recruitment, performance management, training, career development, and work-life balance combined to form ‘bundles’ of specific practices that demonstrated not only high reliability but also high face validity given the outsourcing context. The first dimension, *proactive HR practices*, though similar to “high commitment management” (Wood & de Menezes, 1998) and “high performing work systems” (Becker & Gerhart, 1996; Pfeffer, 1998), was distinguished from these approaches as it did not emphasize the outcomes¹, rather it stressed on the nature of HR practices themselves. Accordingly,

¹ Wood & de Menezes (1998) argued that management through designing High Commitment Work Systems, created conditions for employees to become highly involved in the organization and to identify with its overall goals. Similarly, High Performing Work Systems (Becker & Gerhart, 1996; Pfeffer, 1998) examined possible links between

proactive HR practices focused on promoting transparency, employee participation, communication and training opportunities in the organization. Further, BPO careers were assumed to place distinctive pressures on employees' abilities to manage competing work and home demands (Hyman et al., 2003). The emergence of *flexible work-arrangements* as an important dimension of work system in BPO firms supported the concern for "work-life balance" in previous literature (Hill & Weiner, 2003; Hyman et al., 2003). Interestingly, two new factors were uncovered in the current study, which had not been paid adequate attention in outsourcing literature. The first among these was *focus on career development*, which highlighted a proactive approach to providing information and opportunities for career growth in the organization. The next factor, *focus on employee well-being*, examined organizational policies aimed at holistic development and personal satisfaction of employees and their families.

Clusters of work design

The task characteristics, communication and HR practices factors combined in unique ways to yield four clusters of work design, as proposed in Proposition 1. These were involvement, directed intervention, embedded control, and containment.

An *involvement* oriented work design was seen in 28.3% of sample firms. This cluster was similar to the "involvement" model proposed by Houlihan (2002) in that it used a high commitment management (HCM) approach. It appeared that management, by adopting high commitment work systems, wanted to create conditions for employees to become highly involved in the organization and to identify with its overall goals (Wood & de Menezes, 1998). To achieve this, HCM 'bundles' were designed such as to form a coherent strategy. For example, the organization encouraged transparency in policies and practices through upward, downward and lateral communication channels. It supported professional growth of employees and facilitated employee well-being through attractive facilities and employee-oriented practices. This approach could be seen as a kind of "soft" HRM (Storey, 1992) approach to managing employees. However, this work design was also distinguished from Houlihan's (2002) model in some ways. A considerable pressure was exerted on employees with regard to performance because of pervasive demands of quantitative targets. The organization ensured control and standardization by limiting employee discretion and reducing interdependence between team members. Thus, unlike Houlihan's (2002) model, the *involvement* design was not enabling in

specific HR practices and business performance. However, empirical evidence with regard to both these approaches is still inconclusive and issues of causality have not been resolved (Hutchison et al., 2000).

nature. Further, this work design was not associated predominantly with higher end, knowledge-intensive BPO firms only (Frenkel et al., 1998; Houlihan, 2002), but could also be seen in BPO firms offering activities that were lower in value chain.

Directed intervention work design featured in 58.3% of sample firms and was thus the largest work design cluster. It was interesting to note that this cluster was not visible in earlier studies of BPO firms. This could be because most research on BPO firms had focused on low-discretion, highly routinized work designs. In this cluster, however, tasks were distinguished by their low routineness and low requirement for emotional labour. The organization consciously created a facilitative work environment to enhance employee productivity. Alternatively, it “intervened” proactively to address any issue that could limit employee performance. Thus, a “fun” environment was encouraged with frequent celebrations and parties. Avenues for stress reduction and relaxation were provided. In special cases, the organization also provided opportunities to work-from-home, time off to care for seriously ill children, or gradual return to work after child-birth.

Lawrence & Lorsch (1967), Galbraith (1973) and Khandwalla (1977) suggested that firms used integration mechanisms to reduce uncertainty in their environment. These could include control systems, coordinative task forces, vertical and horizontal communication channels and information systems (Miller, 1987b). The *embedded control* work design is an example of such a work system held together by integrated systems. 10% of firms in the sample exhibited this work design. These firms had tasks that were relatively low on routineness and required a high degree of interdependence, which led to a pressing concern for uncertainty reduction. Accordingly, these firms used integrative devices that were embedded in their communication systems and human resource practices in order to control employee performance. For instance, the tasks required high emotional labour due to intense interactions with clients as well as team members. Hence, multiple communication channels were available, which ensured smooth coordination of tasks, as well as served as an “alleviation” mechanism. HR systems were transparent in nature and adequate training opportunities were provided to enhance customer service skills and behaviour skills. This was supported with information and advice on potential career growth within the organization. Flexible work arrangements were offered to increase employee efficiency. It is noteworthy, that all these initiatives were geared to control and enhance performance on the task, while very little concern was exhibited for employee well being and personal development.

The *containment* work design closely resembled the largely accepted images of BPO firms as “electronic sweatshops” (Garson, 1988), “panopticons” (Menzies, 1996), and “assembly lines in the head” (Taylor & Bain, 1999). However, only 3.3% of the sample firms belonged to this cluster, indicating that maybe this was *not* the dominant work design in the industry. This cluster was similar to the “containment” cluster uncovered by Houlihan (2002), which used control-oriented HCM (High Commitment Management) and a coercive approach to task implementation. Similarly, in the current work design, work pressure was created by highly routinized jobs that required high emotion work. Communication channels were limited and information was available only through informal channels. HR practices did not encourage employee growth or well-being. An attempt was made to “contain” stress and motivation problems by utilizing a mix of HCM initiatives such as teams and through token recreational facilities such as cafes and play-areas. However, such initiatives risked superficiality, as they did not address the underlying causes (Houlihan, 2002)

CONTRIBUTIONS

This paper systematically investigated a conceptual model that examined the relationship between work design and organizational performance of BPO firms. Specifically, the study was built on the proposition that there existed a small number of richly defined work design clusters of BPO firms that might be useful for determining whether a BPO firm will tend to be more or less successful. The objective of the research was to identify and describe those clusters. This study also demonstrated that some BPO firms performed better than others because they attended to an aspect of their work design which was ignored by their poor performing comrades.

This study made a few important contributions to the academic realm. It followed research precedents set and tested in general organizational literature, but which had not been used in the context of BPO firms. Just as the theoretical foundation of this study drew from the areas of organization theory and strategic human resource management besides outsourcing, so also could the findings of this study be used in research in these disciplines.

This study argued that work designs could take a variety of forms. Accordingly, in addition to involvement and containment, two new types of work designs emerged in the outsourcing context, namely, directed intervention and embedded control. Finally, this research also

examined the relationship between work design clusters and important performance measures. The empirical data and semi-structured interviews revealed that attrition and business development capabilities were the most important concerns for BPO firms in the current scenario. The fact that the work design could predict which firm performed better than others on these measures provided an important framework on how strategies and processes could be structured.

The study could also prove useful to managers of BPO firms because classifications uncovered in this research might serve as a template for analyzing the present nature of BPO firms and the possible types of organization they might want to become. These findings could also be useful for predicting whether a BPO firm will be more successful or less successful. In case their BPO firm resembled a less successful clusters, managers could check which attributes needed to be altered in order for the organization to fit a more successful configuration. Conversely, managers might find one or two characteristics in their more successful organization that need careful monitoring, especially since the implementation of relevant dimensions did not produce their intended results. This could serve as a basis for understanding and taking corrective action by an organization provided such an action is necessary. Thus, the work design clusters can serve as a guidebook for BPO firm managers attempting to cope more effectively with the competitive environment in which the industry finds itself currently.

LIMITATIONS

The paper suffers from a few constraints, which have been discussed herewith. To begin with, a longitudinal study would have yielded important insights into the stability of these clusters over time. However, due to time constraints, a cross-sectional study was carried out. A larger sample size would have helped the study in important ways. It would have allowed for retention of a sub-sample for validation of the results. In addition, the minor cluster could have emerged as major cluster given a larger sample size. However, due to confidentiality and security concerns, BPO firms were reluctant to participate in the study. Of the 2635 organizations that were contacted in the initial phase, only 97 organizations responded, of which only 60 organizations provided complete data. This left the study with a response rate of 61.9%. Further, the sample was a self-selecting sample, not a true random sample. Thus, it could be said that the study suffers from constraints of a limited sample size.

The sample employed in this study was also skewed towards smaller firms. Greater representation of larger firms (employing several thousand employees) in the sample could have yielded additional clusters. Since the study was limited to BPO firms, the results are not generalizable to organizations outside the outsourcing industry. However, given the similarity between outsourcing firms and other services firms, for instance, information technology services organizations, it may be reasonable to believe that these configurations could be generalizable to organizations outside outsourcing industry. Not all organizations in the sample provided complete and comparable data on financial performance measures. As a result, these measures had to be dropped from the analysis.

While these limitations should be considered when examining the findings, the nature of this research should also be kept in mind. As mentioned earlier, this exploratory study incorporated a broad range of constructs that had not been evaluated in a single study of BPO firms. Consequently, the findings should be seen as preliminary steps down a relatively untrod research path.

FUTURE RESEARCH POSSIBILITIES

Firstly, future research should consider a more complete range of performance outcomes including financial performance of BPO firms. It could also incorporate Batt and Moynihan's (2002) suggestion that empirical studies do not examine the trade-offs between different types of outcomes. For instance, the relationship between efficiency and quality of service could be quite ambiguous. In transactions with the clients, organizations wanted employees to reduce average handling time. However, client satisfaction was also related to the quality of service offered, which increased average handling time in many cases. Since more and more BPO firms have begun to incorporate customer feedback while appraising their employees, quality and efficiency no longer remain complementary goals for BPO firm employees and have implications for their performance. Future research could investigate such potential conflicts in performance outcomes and arrive at a more in-depth understanding of what constitutes "success" for BPO firms.

It was interesting to note that on one hand, the "sweatshop" image of BPO firms dominant in popular memory did not hold true, and BPO firms could organize themselves in a variety of "non-coercive" ways. On the other hand, customer abuse, which is typically associated with low-end call centre jobs, was very high in the high-end knowledge intensive BPO firms too. These

findings are contrary to those elaborated upon in outsourcing literature. It would be pertinent to investigate what makes customers so angry and the conflict management styles adopted by employees in these scenarios.

Since this research was conducted in only one country i.e. India, replicating these results across countries would help in their validation, allowing for an in-depth understanding of BPO firms in particular and outsourcing success in general.

This research represents only the initial steps needed to identify the types of BPO firms whose work designs make them more or less successful organizations. It is hoped that the findings of this study will contribute to theory building in the field of outsourcing research. At the same time, it is expected to help managers who are trying to move their BPO firms in the direction of sustainable success through the choice of appropriate designs. Notwithstanding these, if the study simply proves to be a guide towards a better understanding of BPO firms, it will have served one of its most important purposes.

REFERENCES

- Anderson, J. C., & Narus, J. A. 1990. A model of distributor firm and manufacturer firm working partnerships. *Journal of Marketing*, 54: 42-58.
- Ansoff, H. I. 1965. *Corporate strategy*. New York: McGraw-Hill.
- Argyrous, G. 2005. *Statistics for research: With a guide to SPSS*. London: Sage.
- Bae, J., & Lawler, J. J. 2000. Organizational and HRM strategies in Korea: Impact on firm performance in an emerging economy. *Academy of Management Journal*, 34 (3): 502-517.
- Baker, D. D., & Cullen, J. B. 1993. Administrative reorganization and configurational context: The contingent effects of age, size and change in size. *Academy of Management Journal*, 36 (6): 1251-1277.
- Barley, S. R., & Kunda, G. 2001. Bringing work back in. *Organizational Science*, 12 (1): 76-95.
- Barnes, P.C. 2005. Outsourcing: A review of trends and some management issues. *Management Services*, 49 (4): 42-44.
- Barrar, P., & Gervais, R. 2006. *Global outsourcing strategies: An international reference on effective outsourcing relationships*. Hampshire: Gower Publishing Limited.
- Bartlett, M. S. 1950. Tests of significance in factor analysis. *British Journal of Statistical Psychology*, 3 : 77-85.
- Bartlett, M. S. 1951. A further note on tests of significance in factor analysis. *British Journal of Statistical Psychology*, 4 : 1-2.
- Batt, R. 1999. Work organization, technology, and performance in customer service and sales. *Industrial and Labor Relations Review*, 52 (4): 539-564.
- Batt, R. 2000. Strategic segmentation in front-line services: Matching customers, employees and human resource systems. *International Journal of Human Resource Management*, 11 (3): 540-561.
- Batt, R., & Moynihan, L. 2002. The viability of alternative call centre production models. *Human Resource Management Journal*, 12 (4): 14-34.
- Batt, R., Doellgast, V., & Kwon, H. 2005. Service management and employment systems in U.S. and Indian call centres. In S. Collins & L. Brainard (Eds.), *Brookings Trade Forum 2005* : 335-360. Washington D.C. : The Brookings Institution.
- Bensaou, M. & Venkatraman, N. 1995. Configurations of interorganizational relationships: A comparison between U.S. and Japanese automakers. *Management Science*, 41 (9): 1471-1492.

- Bordoloi, S. K. 2004. Agent recruitment planning in knowledge-intensive call centres. ***Journal of Service Research***, 6 (4): 309-323.
- Bourgeois, L. J. III. 1980(a). Strategy and environment: A conceptual integration. ***Academy of Management Review***, 5: 25-39.
- Bourgeois, L. 1980(b). Performance and consensus. ***Strategic Management Journal***, 1 (1): 227-248.
- Brandenburger, A. M., & Nalebuff, B. J. 1996. ***Co-opetition***. New York: Doubleday.
- Brass, D. J. 1985. Technology and the structuring of jobs: Employee satisfaction, performance, and influence. ***Organizational Behaviour and Human Decision Processes***, 35: 216-240.
- Brotheridge, C. M., & Lee, R. T. 2003. Development and validation of the emotional labour scale. ***Journal of Occupational and Organizational Psychology***, 76: 365-379.
- Budhwar, P. S., Varma, A., Singh, V., & Dhar, R. 2006. HRM Systems of Indian call centres: an exploratory study. ***International Journal of Human Resource Management***, 17 (5): 881-897.
- Callaghan, G., Thompson, P. 2002. 'We recruit attitude': The selection and shaping of routine call centre labour. ***Journal of Management Studies***, 39 (2): 233-254.
- Carter, N. M., Stearns, T. M., Reynolds, P.D., & Miller, B.A. 1994. New venture strategies: Theory development with an empirical base. ***Strategic Management Journal***, 15: 21-41.
- Cohen, A. 2007. ***Agreement indices in multi-level analysis***. Retrieved May 20, 2008, from <http://methods.haifa.ac.il/ayalac.ppt>
- Datta, D. K., Guthrie, J. P., & Wright, P. M. 2005. Human resource management and labour productivity: Does industry matter? ***Academy of Management Journal***, 48 (1): 135-145.
- Datta, R. C. 2004. ***Worker and work: A case study of an international call centre in India***. Paper presented at the 22nd International Labour Process Conference, University of Amsterdam.
- Deery, S., Iverson, R., & Walsh, J. 2002. Work relationships in telephone call centres: Understanding emotional exhaustion and employee withdrawal. ***Journal of Management Studies***, 39 (4): 471-496.
- Deery, S., & Kinnie, N. 2002. Call centres and beyond: A thematic evaluation. ***Human Resource Management Journal***, 12 (4): 3-13.
- Desai, P. B. 2007. Identification towards clients in employees of outsourcing service providers. ***IIMB Management Review***, 213 – 221.

- Dess, G. G., & Robinson Jr., R. B. 1984. Measuring organizational performance in the absence of objective measures: The case of privately-held firms and conglomerate business unit. ***Strategic Management Journal***, 5: 265-273.
- Dormann C., & Zijlstra, F. R. H. 2003. Call centres: High on technology – high on emotions. ***European Journal of Work and Organizational Psychology***, 12 (4): 305-310.
- Downs, C. W., & Hazen, M. D. 1977. A factor analytic study of communication satisfaction. ***Journal of Business Communication***, 14 (3): 63-73.
- Doty, D. H., Glick, W. H., & Huber, G. P. 1993. Fit, equifinality, and organizational effectiveness: A test of two configurational theories. ***Academy of Management Journal***, 36 (6): 1196-1250.
- Edwards, J. E., Scott, J. C., & Raju, N. S. 2003. ***The human resources program – Evaluation handbook***. Thousand Oaks, CA : Sage Publications, Inc.
- Einhorn, B., & Kriplani, M. 2003. Outsourcing: Make way for China. ***BusinessWeek Online***. Retrieved December 11, 2007 from www.businessweek.com/magazine/content/03_31/b3844132_mz033.htm?chan=search
- Elliot, A. C. & Woodward, W. A. 2007. **Statistical analysis: Quick reference guidebook with SPSS examples**. Thousand Oaks, CA: Sage.
- Everitt, B. S. 1993. ***Cluster analysis***. London: Edward Arnold.
- Espino-Rodríguez, T. F., & Padrón-Robaina, V. 2006. A review of outsourcing from the resource-based view of the firm. ***International Journal of Management Reviews***, 8 (1): 49-70.
- Farren, C., & Kaye, B. 1996. The career-dimension survey: Asking the right career development questions. In Pfeiffer, J. W. (Ed.), ***The 1996 Annual: Volume I, Training***: 123-137. San Diego, CA: Pfeiffer & Company.
- Fey, C. F., Björkman, I., & Pavlovskaya, A. 2000. The effect of human resource management practices on firm performance in Russia. ***International Journal of Human Resource Management***, 11 (1): 1-18.
- Frauenheim, E. 2002. US firms move IT overseas. ***CNET News.com***, Retrieved December 11 2007 from <http://news.com/2102-1001-982839.html>
- Frenkel, S. J., Tam, M., Korczynski, M., & Shire, K. 1998. Beyond bureaucracy? Work organization in call centres. ***The International Journal of Human Resource Management***, 9 (6): 957-979.
- Ford, E. W. 2000. ***A comparative study of state health agency configurations and the communication patterns of their leaders***. Unpublished doctoral dissertation, University of Alabama, Birmingham.
- Gale, B. 1972. Market share and rate of return. ***The Review of Economics and Statistics***, 54 (4): 412-423.

- Gans, N., Koole, G., & Mandelbaum, A. 2003. Telephone call centres: Tutorial, review and research prospects. *Manufacturing and Service Operations Management*, 5 (2): 79 - 141.
- Garson, B. 1988. *The electronic sweatshop: How computers are transforming the office of the future into the factory of the past*. New York: Simon & Schuster.
- Goldhaber, G. M., & Rogers, D. P. 1979. *Auditing organizational communication systems: The ICA communication audit*. Dubuque, IA: Kendall/Hunt.
- Goles, T. 2001. *The impact of client-vendor relationship on information systems outsourcing success*. Unpublished doctoral dissertation, University of Houston, Houston.
- Gottfredson, M., Puryear, R., & Phillips, S. 2005. Strategic sourcing from periphery to the core. *Harvard Business Review*, 83 (2): 132-139.
- Greco, J. 1997. Outsourcing: The new partnership. *The Journal of Business Strategy*, 4: 48-54.
- Greenbaum, H. H., Clampitt, P., & Willihnganz, S. 1988. Organizational communication: An examination of four instruments. *Management*, 2 (2): 245-282.
- Gruenberg, M. 2003. White –collar job flight concerns lawmakers. *Press Associates Union News Service*, Retrieved December 15, 2007 from www.washtech.org/wt/printer.php?ID-Content=4624.
- Guest, D. E., Michie, J., Conway, N., & Sheehan, M. 2003. Human resource management and corporate performance in the UK. *British Journal of Industrial Relations*, 41 (2): 291-314.
- Gunta, S. 2007. Co-location of unrelated divisions in the ITES-BPO industry: Dynamics of value-creation and destruction. *IIMB Management Review*, 201-211.
- Hair, J. F., Anderson, R. E., & Tatham, R. L. 1987. *Multivariate data analysis with readings*. New York: Macmillian Publishing Company.
- Hanks, S. H., Watson, C. J., Jansen, E., & Chandler, G. N. Tightening the life-cycle construct: A taxonomic study of growth stage configurations in high-technology organizations. *Entrepreneurship Theory and Practice*, 18 (2): 5-29.
- Hartigan, J. A. 1975. *Clustering algorithms*. New York: John Wiley & Sons, Inc.
- Hillmer, S., Hillmer, B., & McRoberts, G. (2004). The real costs of turnover: Lessons from a call centre. *Human Resource Planning*, 27 (3): 34-41.
- Hofer, C. W., & Schendel, D. E. 1978. *Strategy formulation: Analytical concepts*. New York: West Publishing Co.
- Holman, D. 2002. Employee wellbeing in call centres. *Human Resource Management Journal*, 12 (4): 35-50.

- Houlihan, M. 2000. Eyes wide shut? Querying the depth of call centre learning. ***Journal of European Industrial Training***, 24: 228-240.
- Houlihan, M. 2001. Managing to manage? Stories from the call centre floor. ***Journal of European Industrial Training***, 25: 208-220.
- Houlihan, M. 2002. Tensions and variations in call centre management strategies. ***Human Resource Management Journal***, 12 (4): 67-85.
- Howell, D. C. 1999. ***Fundamental statistics for behavioral sciences***. 4th ed. Pacific Grove: Duxbury Press.
- Huizingh, E. 2007. ***Applied statistics with SPSS***. London: Sage.
- Huselid, M. A., Jackson, S. E., & Schuler, R. S. 1997. Technical and strategic human resource management effectiveness as determinants of firm performance. ***Academy of Management Journal***, 40 (1): 171-188.
- Hutchinson, S., Purcell, J., & Kinnie, N. 2000. Evolving high commitment management and the experience of the RAC call centre. ***Human Resource Management Journal***, 10 (1): 63-78.
- Hyman, J., Baldry, C., Scholarios, D., & Bunzel, D. 2003. Work-life imbalance in call centres and software development. ***British Journal of Industrial Relations***, 41 (2): 215-239.
- Ichniowski, C., Shaw, K., & Prennushi, G. 1995. ***The effects of human resource management practices on productivity***. Working paper no. 5333. National Bureau of Economic Research, Cambridge, MA.
- Ichniowski, C., Shaw, K., & Prennushi, G. 1997. The effects of human resource management practices on productivity: A study of steel finishing lines. ***The American Economic Review***, 87 (3): 291-314.
- ICRIER (Indian Council for Research on International Economic Relations). 2006. ***Prospects for IT-enabled services under a Indo-US FTA***. Retrieved January 5, 2008 from http://www.icrier.org/pdf/Working_Paper_No%5B1%5D._187.pdf
- Jablin, F. M., & Putnam, L. L. 2001. ***The new handbook of organizational communication: Advances in theory, research, and methods***. Thousand Oaks, CA: Sage Publications, Inc.
- James, L. R., Demaree, R. G. & Wolf, G. 1984. Estimating within-group interrater reliability with and without response bias. ***Journal of Applied Psychology***, 69: 85-98.
- Johnson, J., & Schenider, K. 1995. Outsourcing in distribution: The growing importance of transportation brokers. ***Business Horizons***, 38 (6): 40-49.
- Kaiser, H. 1970. A second generation little jiffy. ***Psychometrika***, 35 (4): 401-415

- Kakabadse, N., & Kakabadse, A. 2006. Global IT sourcing: Analysis, developments and best practice considerations. In P. Barrar & R. Gervais (Eds.), ***Global outsourcing strategies: An international reference on effective outsourcing relationships***: 49-64. Hampshire: Gower Publishing Limited.
- Kelley, T., & Poole, D. 2006. The evolution of outsourcing. In P. Barrar & R. Gervais (Eds.), ***Global outsourcing strategies: An international reference on effective outsourcing relationships***: 43-48. Hampshire: Gower Publishing Limited.
- Kiggundu, M. N. 1983. Task interdependence and job design: Test of a theory. ***Organizational Behavior and Human Performance***, 31: 145-172.
- Knemeyer, A., Corsi, T., & Murphy, P. 2003. Logistics outsourcing relationships: customer perspectives. ***Journal of Business Logistics***, 24 (1): 77-109.
- Lacity, M. C., & Willcocks, L. P. 1998. An empirical investigation of information technology sourcing practices: Lessons from experience. ***MIS Quarterly***, 22 (3): 363-408.
- Landis, J. R., Koch, G. G. 1977. The measurement of observer agreement for categorical data. ***Biometrics***, 33:159-174.
- LeBreton, J. M., James, L. R., Lindell, M. K. 2005. Recent issues regarding rWG, r*WG, rWG (J), r*WG (J). ***Organizational Research Methods***, 8 (1): 128-138.
- Lee, J. N., & Kim, Y. G. 1999. Effect of partnership quality on IT outsourcing success: Conceptual framework and empirical validation. ***Journal of Management Information Systems***, 15 (4): 29-61.
- Lewig, K. A., & Dollard, M. F. 2003. Emotional dissonance, emotional exhaustion and job satisfaction in call centre workers. ***European Journal of Work and Organizational Psychology***, 12(4): 366-392.
- Logan, M. S. 2000. Using agency theory to design successful outsourcing relationships. ***International Journal of Logistics Management***, 11 (2): 21-32.
- Looff, L. A. De. 1995. Information systems outsourcing decision making: A framework, organizational theories and cases. ***Journal of Information Technology***, 10 (4): 281-297.
- Loveman, G. W. 1998. Employee satisfaction, customer loyalty, and financial performance: An empirical examination of the service profit chain in retail banking. ***Journal of Service Research***, 1 (1): 18-31.
- MacDuffie, J. P. 1995. Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry. ***Industrial and Labor Relations Review***, 48: 197-221.
- McCaffrey, M. 1999. Offshore outsourcing: the alternatives, key countries, and major challenges. ***Cutter IT Journal***, 12 (10): 29-34.
- McFarlan, F. W. & Nolan, R. L. 1995. How to manage an IT outsourcing alliance. ***Sloan Management Review***, 36 (2): 9-23.

- McIvor, R. 2006. Outsourcing: Drivers and future developments. In P. Barrar & R. Gervais (Eds.), ***Global outsourcing strategies: An international reference on effective outsourcing relationships***: 49-64. Hampshire: Gower Publishing Limited.
- Meyers, L. S., Gamst, G., & Guarino, A. J. 2006. ***Applied multivariate research: Design and interpretation***. Thousand Oaks, CA: Sage.
- Miller, D., & Friesen, P. H. 1984. ***Organizations: A quantum view***. Englewood Cliffs, NJ: Prentice-Hall.
- Milligan, G. W. 1980. An examination of the effect of six types of error perturbation on fifteen clustering algorithms. ***Psychometrika***, 45: 325-342.
- Mintzberg, H. T. 1979. ***The structuring of organizations***. Englewood Cliffs, NJ: Prentice-Hall.
- Mintzberg, H. T. 1983. ***Structure in fives: Designing effective organizations***. Englewood Cliffs, NJ: Prentice-Hall.
- Mintzberg, H. T., & Lampel, J. 1999. Reflecting on the strategy process. ***Sloan Management Review***, 40 (3): 21-30.
- Mintzberg, H. T., Quinn, J. B., & Voyer, J. 1995. ***The strategy process***. New Jersey: Prentice Hall, Englewood Cliffs.
- Mintzberg, H. T., & Waters, J. 1982. Tracking strategy in an entrepreneurial firm. ***Academy of Management Journal***, 25: 465-499.
- Morgan Cole E-Business Team, 2004. Legal column: December 2003 – public sector not following the offshoring trend. ***Morgan Cole E-Business Bulletin***, Retrieved 27 April, 2008 from www.itsecurity.com/archive/papers/eb21.htm.
- Mulholland, K. 2002. Gender, emotional labour and teamworking in a call centre. ***Personnel Review***, 31 (3): 283-303.
- Nasscom-McKinsey Report. 2006. ***Extending India's leadership of the global IT and BPO industries***. Retrieved October 12, 2006, from <http://www.nasscom.in/Nasscom/templates/LandingPage.aspx?id=4946>
- Nunnally, J.C. 1967. ***Psychometric theory***. New York: McGraw-Hill.
- Odagiri, H. 2003. Transaction costs and capabilities as determinants of the R&D boundaries of the firm: a case study of the ten largest pharmaceutical firms in Japan. ***Managerial and Decision Economics***, 24 (2-3): 187-211.
- Ono, Y. 2003. Outsourcing business services and the role of central administrative offices. ***Journal of Urban Economics***, 53 (3): 377-395.

- Peccei, R., & Rosenthal, P. 1997. The antecedents of employee commitment to customer service: evidence from a UK service context. ***The International Journal of Human Resource Management***, 8: 66-86.
- Perrow, C. 1967. A framework for the comparative analysis of organizations. ***American Sociological Review***, 32: 194-208.
- Perrow, C. 1972. A framework for the comparative analysis of organizations. In M. B. Brinkerhoff & P. R. Kuntz (Eds.), ***Complex organizations and their environments***: 48-67. Dubuque, IA: Brown.
- Punj, G., & Stewart, D. W. 1983. Cluster analysis in marketing research: Review and suggestions for application. ***Journal of Marketing Research***, 20: 134-148.
- Quinn, J. B., Doorley, T. L., Paquette, P. C. 1990. Beyond products: Services-based strategy. ***Harvard Business Review***, 68 (2): 58-67.
- Ramesh, B. 2004. 'Cyber Coolies' in BPO: Insecurities and vulnerabilities of non-standard work. ***Economic and Political Weekly***, 35 (5): 492-497.
- Reich, R. B. 2003. 'High-tech jobs are going abroad! But that's okay.' ***The Washington Post***, Retrieved April 27, 2008 from <http://www.robertreich.org/reich/20031102.asp>
- Roberts, K. H., & O'Reilly, C. A., III. 1974. Measuring organizational communication. ***Journal of Applied Psychology***, 59 (3): 321-326.
- Roberts, K. H., & O'Reilly, C. A., III. 1988. The organizational communication questionnaire. ***Management***, 2 (2): 245-282.
- Saunders, C., Gebelt, M., & Hu, Q. 1997. Achieving success in information systems outsourcing. ***California Management Review***, 39 (2): 63-79.
- Schlesinger, L. A., & Heskett, J. L. 1991. The service driven company. ***Harvard Business Review***, 69 (5): 71-81.
- Schneider, B., & Bowen, D. E. 1993. The service organization: human resource management is crucial. ***Organizational Dynamics***, 21 (4): 39-53.
- Sinha, K. K., & Van de Ven, A. H. 2005. Designing work within and between organizations. ***Organization Science***, 16 (4): 389-408.
- Smith, K. G., Smith, K. A., Olian, J. D., Sims Jr., H. P., O'Bannon, D. P., Scully, J. A. 1994. Top management team demography and process: The role of social integration and communication. ***Administrative Science Quarterly***, 39: 412-438.
- Speece, D. L., McKinney, J. D., & Appelbaum, M. I. 1985. Classification and validation of behavioural subtypes of learning-disabled children. ***Journal of Educational Psychology***, 77 (1): 67-77.
- Sprigg, C. A., & Jackson, P. R. 2006. Call centres as lean service environments: Job-related strain and the mediating role of work design. ***Journal of Occupational Health Psychology***, 11 (2): 197-212.

- Stewart, D. W. 1981. The application and misapplication of factor analysis in marketing research. ***Journal of Marketing Research***, 18: 51-62.
- Tabachnick, B. G., & Fidell, L. S. 2001. ***Using multivariate statistics***. Needham Heights, MA: Allyn & Bacon.
- Taylor, P., & Bain, P. 1999. 'An assembly line in the head': Work and employee relations in the call centre. ***Industrial Relations Journal***, 30 (2): 101-117.
- Taylor, P., & Bain, P. 2001. Trade unions, workers' rights and the frontier of control in UK call centres. ***Economic and Industrial Democracy***, 22 (1): 39-66.
- Thompson, J. D. 1967. ***Organizations in action***. New York: McGraw Hill.
- Van Der Vegt, G., Emans, B., & Van De Vliert, E. 2000. Team members' affective responses to patterns of intragroup interdependence and job complexity. ***Journal of Management***, 6 (4): 633-655.
- VanderWerf, P. A., & Brush, C. G. 1989. Achieving empirical progress in an undefined field. ***Entrepreneurship: Theory & Practice***, 14 (2): 45-58.
- Venkatesan, R. 1992. Strategic sourcing: To make or not to make. ***Harvard Business Review***, 70 (6): 98-107.
- Wallace, C. M., Eagleson, G., & Waldersee, R. 2000. The sacrificial HR strategy in call centres. ***International Journal of Service Industry Management***, 11 (2): 174-184.
- Weber, M. 1947. ***Theory of social and economic organization***. New York: The Free Press.
- Whitt, W. 2006. The impact of increased employee retention on performance in a customer contact centre. ***Manufacturing & Service Operations Management***, 8 (3): 235-252.
- Wickham, J., & Collins, G. 2004. The call centre: A nursery for new forms of work organization? ***The Service Industries Journal***, 24 (1): 1-18.
- Wiio, O. A. 1977. ***Contingencies of organizational communication: Results of communication auditing in Finnish organizations***. Research report IA771218, Institute for Human Communication, Helsinki.
- Wiio, O. A. 1988. The organizational communication audit questionnaire. ***Management***, 2 (2): 245-282.
- Winer, B. J. 1971. ***Statistical principles in experimental design***. 2nd ed. New York: McGraw-Hill.
- Winer, B., Brown, D., & Michels, K. 1991. ***Statistical principles in experimental design***. 3rd ed. McGraw Hill, New York.
- Winslow, C. D., & Bramer, W. L. 1994. ***Futurework***. New York: The Free Press.

- Withey, M., Daft, R. L., & Cooper, W. H. 1983. Measures of Perrow's work unit technology: An empirical assessment and a new scale. ***Academy of Management Journal***, 26 (1): 45-63.
- Wood, S., & de Menezes, L. 1998. High commitment management in the UK: Evidence from the workplace industrial relations survey and employers' manpower and skills practices survey. ***Human Relations***, 51 (4): 485-515.
- Wood, S., Holman, D., & Stride, C. 2006. Human resource management and performance in UK call centres. ***British Journal of Industrial Relations***, 44 (1): 99-124.
- Wuensch, K. L. 2007. ***Inter-rater agreement***. Retrieved May 23, 2008, from <http://core.ecu.edu/psyc/wuenschk/docs30/InterRater.doc>
- Zapf, D., Vogt, C., Seifert, C., Mertini, H., & Isic, A. 1999. Emotion work as a source of stress: The concept and development of an instrument. ***European Journal of Work and Organizational Psychology***, 8 (3): 371-400.
- Zapf, D., Isic, A., Bechtoldt, M., & Blau, P. 2003. What is typical for call centre jobs? Job characteristics, and service interactions in different call centres. ***European Journal of Work and Organizational Psychology***, 12 (4): 311-340.
- Zsidisin, G. 2003. Managing perceptions of supply risk. ***Journal of Supply Chain Management***, 39 (1): 14-25.